

UROSKOP ACCESS

SP

Installation Instructions

System

System

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Prerequisites

Required aids and tools

NOTE

All listed tools and measuring and auxiliary equipment except for the customary installation tools are listed in the Service Tools Catalogue (as part of the Spare Part Catalogue).

Drilling machine with a tapping drill	n.a.
Torque wrench 20-100 Nm	44 30 906 RH090
Torque wrench 40-200 Nm	80 86 142 RE999
Socket head insert, 14 mm	52 66 564
Loctite 221	n.a.
Silicon oil, AK350	17 87 035
Masonry drill (diameter d = 18 mm)	n.a.
Transport rollers	11 53 654 G5338
Level (measuring accuracy: 1.0 mm/m)	n.a.

Required documents

Installation and Start-up; Installation of options	SPL5-330.814.02.xx
Installation and Start-up; Urodynamic Interface/Scan Converter	SPL5-330.814.01.xx
Installation Certificate; Service Provider Documentation	SPL5-330.813.01.xx
Installation Instructions for the UROSKOP Access TFT Support Arm System (Ondal)	1519892/01-2005 (print number from the manufacturer Ondal)
Project plan	n.a.
Wiring Diagram	SPL5-330.844.91.01.02 (57 56 130-EFS-01A)
Planning Guide; System; UROSKOP Access (e)	SPL5-330.891.01.xx
UROSKOP ACCESS; Help File FLC	SPL5-330.880.01.xx
X-Ray Diagnostic System; Installation Instruction; High voltage cable RH 098-5DF6 071	RX0-000.031.01.xx

Room preparations

- The floor covering must be removed in the area of the base plate and the transformer trough.
- The lifting base and the transformer trough must be mounted directly on the concrete floor.
 - PVC or tiling must be removed first.

Notes

- This document was originally written in German.

Safety information

Mechanical safety information

CAUTION

Risk of injury from mechanical parts!

If not observed, minor to more severe injury, especially to the hands, can occur. After the covers are opened, parts such as flat plugs, threaded bolts, cut-off cable ties and component edges are exposed, and if care is not taken, they can cause crushing, scrapes and cuts to the skin, particularly to the hands.

- ⇒ Perform the required work with special care and attention to detail.
- ⇒ If necessary, wear work gloves.

Product-specific notes

CAUTION

Risk of the unit carrier tipping!

Pushing on the longitudinal sides of the unit carrier when using the transport frame and transport rollers to transport the unit carrier can result in tipping.

- ⇒ Push the unit carrier on the front sides and not on the longitudinal sides.

NOTE

Handle the TFT monitors with care. The monitors at the Urooskop Access do not have touch screen functionality so that pressing on the display surface could result in irreversible damage.

- Checking the cabling and power connection
 - For safety reasons the power connection may be made only by the SIEMENS service engineer/electrician.
 - The complete cabling must also be inspected by the SIEMENS service engineer before the system is switched on.

Completing the installation certificate

- Document "Installation Certificate; Service Provider Documentation" (SPL5-330.813.01.xx) is to be filled out by the responsible service provider at the time of installation and wiring. The installation result must be confirmed by signature of the

responsible service provider and the project manager. Both the responsible service provider and the person responsible for the project should receive a copy. The installation certificate is to be provided to the office specified in the document.

Tolerance data

General tolerances for length dimensions according to ISO 2768

Limits of nominal size range	over 3 mm to 6 mm	over 6 mm to 30 mm	over 30 mm to 120 mm	over 120 mm to 400 mm	over 400 mm to 1,000 mm	over 1,000 mm to 2,000 mm	over 2,000 mm to 4,000 mm
Admissible tolerance	$\pm 0.5 \text{ mm}$	$\pm 1 \text{ mm}$	$\pm 1.5 \text{ mm}$	$\pm 2.5 \text{ mm}$	$\pm 4 \text{ mm}$	$\pm 6 \text{ mm}$	$\pm 8 \text{ mm}$

NOTE

These tolerances apply to all dimensions indicated in these instructions, unless other tolerances are specifically indicated after the value.

Tightening torques

- In the case of the tightening torque, a tolerance of $\pm 10\%$ is permissible.

Colors used

White	Basic unit	Part no. 34 42 472
Light Basic	Unit Base	Part no. 55 06 865
Medical Blue	Emphasized areas	Part no. 55 06 857

Abbreviations

IS	Imaging system
II	Image intensifier
FLC	FLUOROSPOT Compact
TV	Television
ISK	Allen screw
LAN	Local Area Network

Installation preparations

Accessories for the lifting base

- The lifting base comes with the following installation accessories:
 - 6 anchors HSL-3 M12/50
 - 6 anchors HSL-3 M12/100
 - 6 plate washers
 - Caps for the floor plate
 - Shims
 - Drilling template

Installing the transport rollers on the lifting base



Fig. 1: Transport frame

- Fasten the 4 transport rollers to the transport frame via 2 Allen screws M12x25 and washers per transport roller (Fig. 1 / p. 10).
- Unscrew the lifting base from the pallet.
- Move the transport rollers down to just above the floor.
- Bring the lifting base into the examination room.

NOTE

The 4 Allen screws M 12 x 40 mm (3/Fig. 3 / p. 12) are required for leveling the lifting base.

Positioning and installing the lifting base

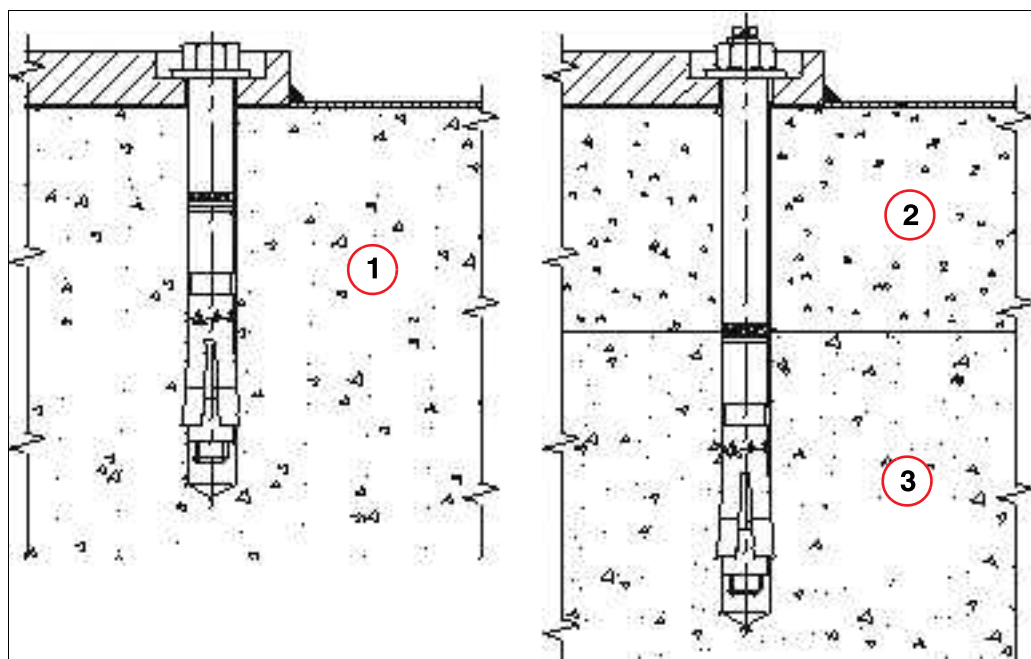


Fig. 2: Lifting base installation

Pos. 1 Concrete
Pos. 2 Screed
Pos. 3 Concrete

NOTE

Installation directly on concrete: (1/Fig. 2 / p. 11)

Use anchors HSL-3 M12/50

NOTE

Installation in the case of a concrete filling when a floor topping and insulating layer were not used: (2/Fig. 2 / p. 11), (3/Fig. 2 / p. 11)

Use anchors HSL-3 M12/100

NOTE

The relevant type of safety anchors must be installed according to the floor condition (also refer to the project plan).

If installing on an installation frame, M12 screws with strength class 8.8 must be provided by the customer. When installing with a drilled-through floor, M12 threaded rods with strength class 8.8 must be provided by the customer. Use the supplied washers with screws or threaded rods. Secure screws or nuts with Loctite 221.

Example of a base plate with a lefthanded design

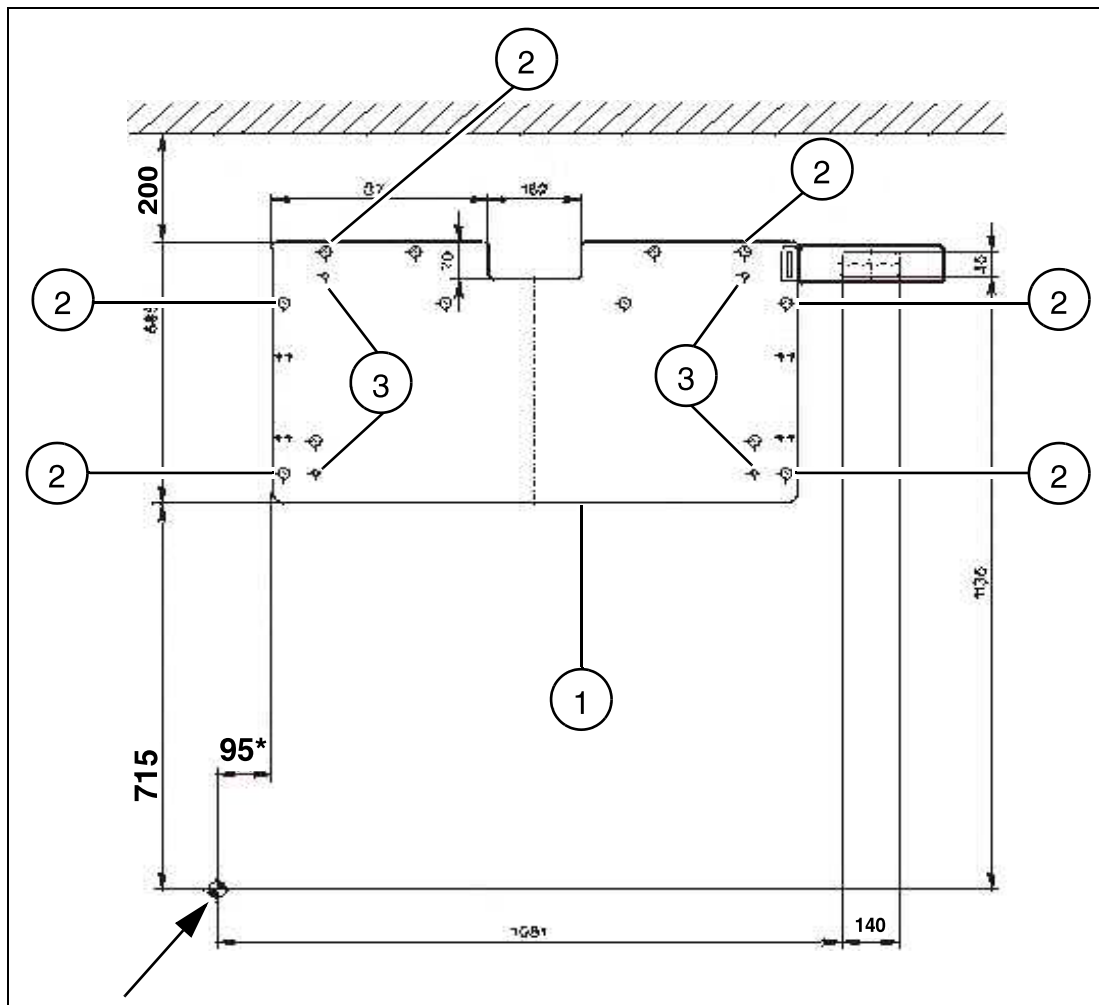


Fig. 3: Left-hand version of the base plate

- Mark the orientation point on the floor according to the project plan (see arrow, (Fig. 3 / p. 12)).
- Position the drilling template (1/Fig. 3 / p. 12) according to the orientation point and mark the positions of the 6 holes (2/Fig. 3 / p. 12).
 - Use alternative holes if necessary.
- Drill the holes at the marked positions.
- Vacuum the drilling dust out of the holes.
- Position the lifting base above the drilled holes and move it down.
- Insert the anchors in the drilled holes.
- Unscrew the transport rollers and transport holders from the lifting base.

NOTE

The lifting base may only be installed on a concrete floor. Any flooring, e.g., PVC or tiling, must be removed.

NOTE

The transformer trough may only be installed on the concrete floor. Any flooring, e.g. PVC or tiling, must be removed.

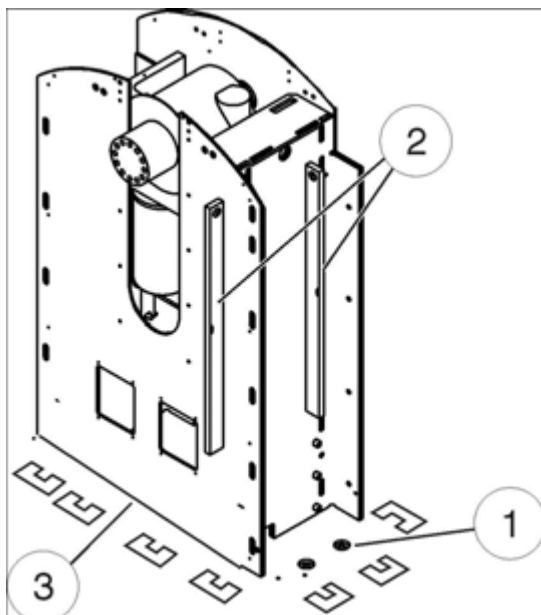


Fig. 4: Base plate
Pos. 1 Safety anchors
Pos. 2 Level
Pos. 3 Shims

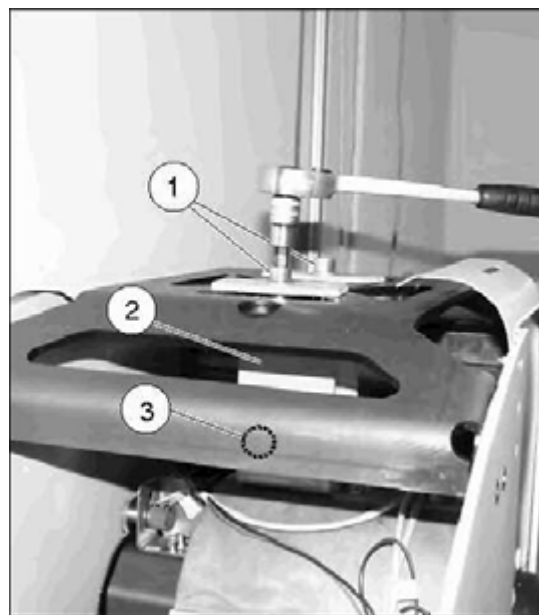


Fig. 5: Lifting base transport safety device
Pos. 1 Allen screws
Pos. 2 Allen screws
Pos. 3 Allen screws

- Screw in the leveling screws (M12 x 40) (3/Fig. 3 / p. 12) and align the lifting base with the aid of a level (2/Fig. 4 / p. 13).
- Place the supplied shims as required underneath the outer edges of the base plate (3/Fig. 4 / p. 13).
- Place the shims along the opening in the middle of the base plate as needed.
- Loosen the leveling screws (3/Fig. 3 / p. 12).
- Tighten the anchors or screws to check the leveling. Use a level to check the levelling (2/Fig. 4 / p. 13), if necessary add or remove shims until the base plate is longitudinally and horizontally in the 0° position.

NOTE

The base plate must not tilt to the front in the direction of the orientation point under any circumstances. The lifting base may, however, tilt slightly to the rear (max. 0.5°).



- Only when leveling is correct in a tightened state can the safety anchors be tightened with a torque of **80 Nm** (1/Fig. 4 / p. 13).
- To remove the transport safety device from the lifting base, unscrew the Allen screws and then remove the transport safety device (1,2,3/Fig. 5 / p. 13).

NOTE

The transport safety device can be relieved by lowering the lifting base with a ratchet (counterclockwise) (1/Fig. 6 / p. 14).

NOTE

Screw (3/Fig. 5 / p. 13) is located on the bottom of the transport safety device.

- Screw the M12 x 30 screw (3/Fig. 5 / p. 13) back into threaded hole of the gear box.

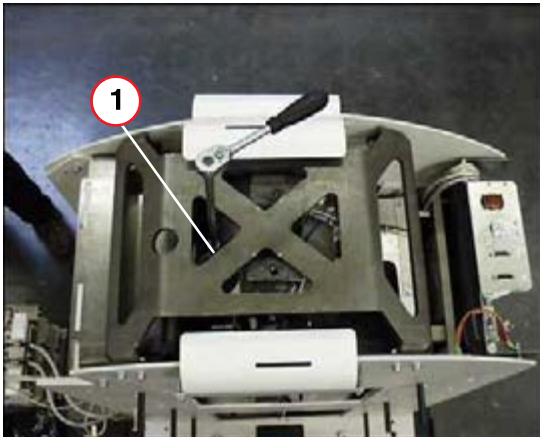


Fig. 6: Relieving the transport safety device
Pos. 1 Ratchet

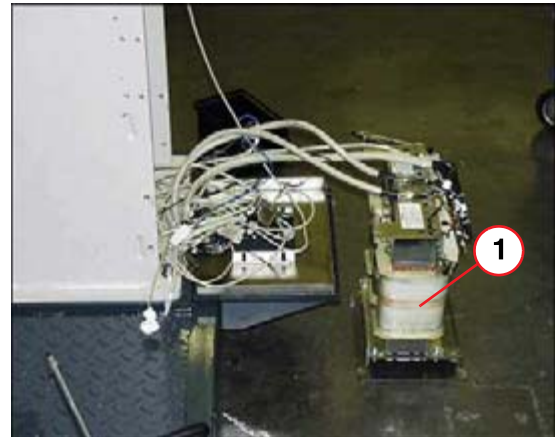


Fig. 7: Removing the system transformer
Pos. 1 System transformer

- Remove the system transformer from the transport frame and place it on the floor (1/Fig. 7 / p. 14).

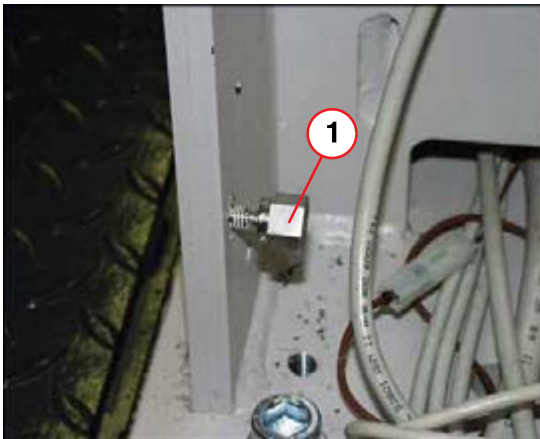


Fig. 8: Unit base
Pos. 1 Bolt

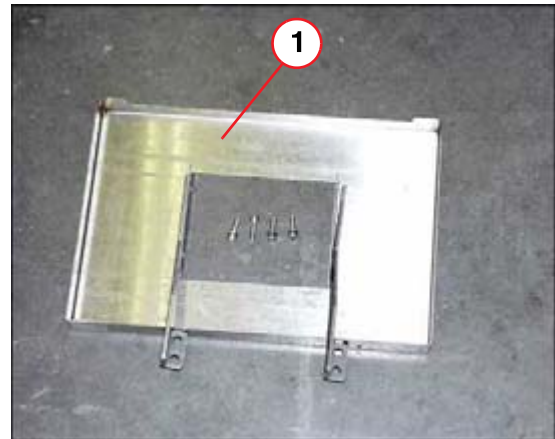


Fig. 9: Transformer trough
Pos. 1 Transformer trough including the transformer holder

- Screw the supplied bolts (1/Fig. 8 / p. 14) into the unit base.
- Then bolt the transformer trough (1/Fig. 9 / p. 14) including the transformer holder to the unit base.

Checking the safety switch (back of the lifting base)

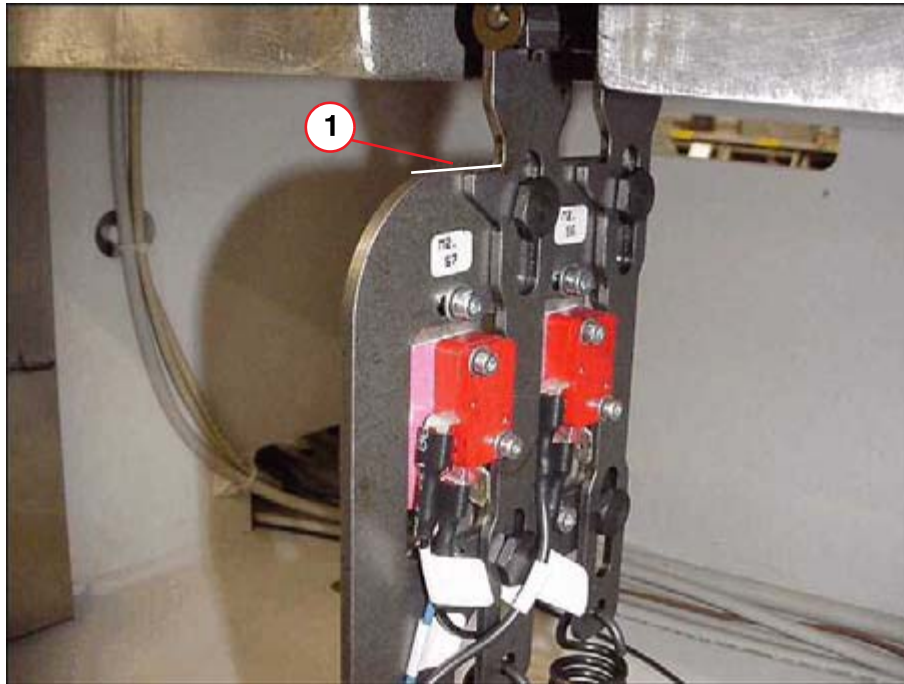


Fig. 10: Safety switch on the back of the lifting base

Pos. 1 Edge

- Align the marked edge of the moving part with the upper edge of the stationary part (1/Fig. 10 / p. 15).

NOTE

When installing the lifting base, check the setting shown in (1/Fig. 10 / p. 15) and adjust it if necessary by loosening the two Allen screws (1/Fig. 11 / p. 16). Subsequently retighten these screws.

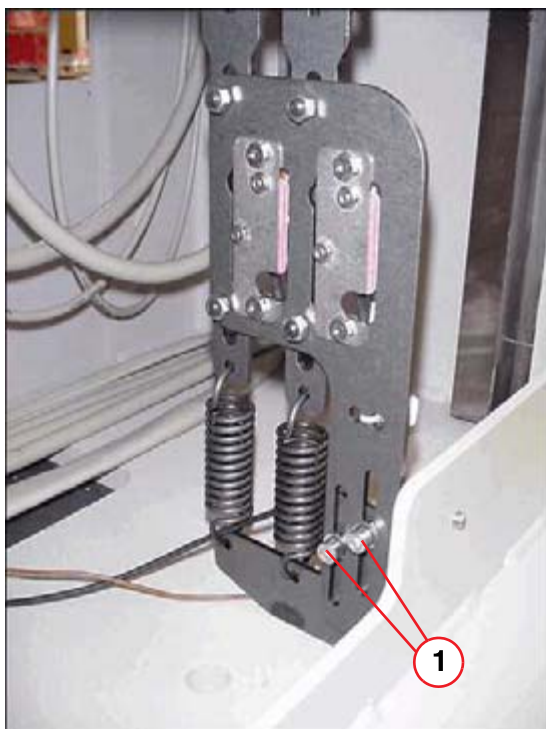


Fig. 11: Lifting base installation

Pos. 1 Allen screws

Installation on the lifting base

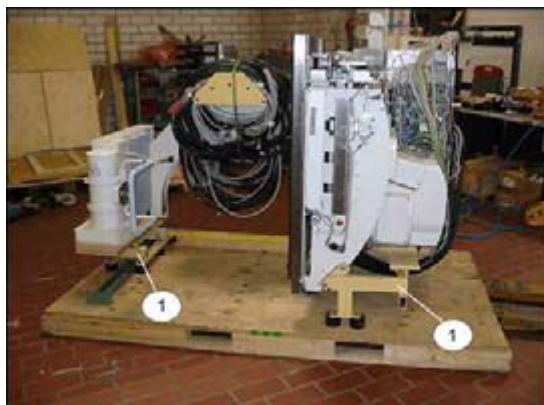


Fig. 12: Screwing on the transport frame
Pos. 1 Transport frame

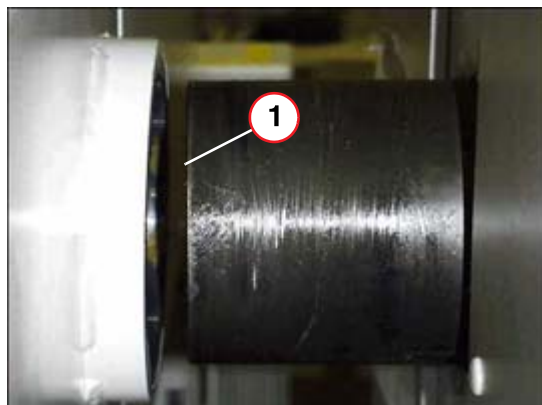


Fig. 13: Unit carrier/lifting base
Pos. 1 Lifting base flange

NOTE

If necessary because of the width of the doors (< 1.15 m), the unit carrier can be tilted to the left or right in the transport frame.

CAUTION

Risk of the unit carrier tipping!

Pushing on the longitudinal sides of the unit carrier when using the transport frame and transport rollers to transport the unit carrier can result in tipping.

⇒ Push the unit carrier on the front sides and not on the longitudinal sides.

- Fasten the 4 transport rollers to the transport frame via 2 Allen screws M12 x 25 and washers per transport roller (1/Fig. 12 / p. 17).
- Unscrew the transport frame from the pallet.
- Raise the unit carrier approx. 3 cm with the aid of the transport rollers and move it carefully off the pallet.
- Move the unit carrier to the lifting base and raise it to the level of the lifting base flange with the aid of the transport rollers (1/Fig. 13 / p. 17).

NOTE

The collimator is delivered separately and is not on the unit carrier pallet.

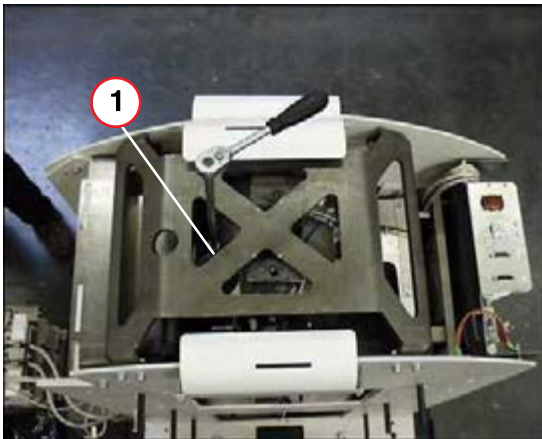


Fig. 14: Relieving the transport safety device
Pos. 1 Ratchet

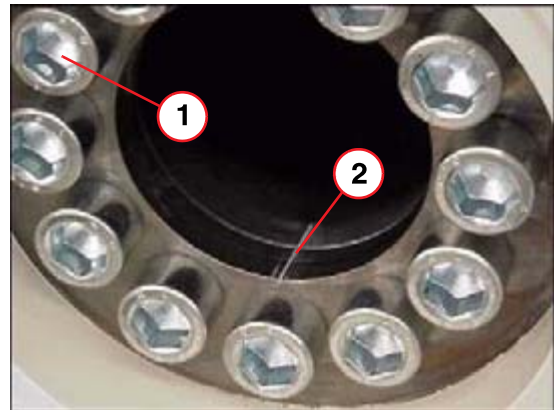


Fig. 15: Unit carrier installation
Pos. 1 Screws M16 x 40

- Align the unit carrier to the flange of the lifting base by means of the marks made in the factory (they must form a line) (2/ Fig. 15 / p. 18) and carefully push the unit carrier onto the flange of the lifting base.

NOTE

The distance between the flange and the lifting base can be changed as needed via a ratchet (precision adjustment, (Fig. 14 / p. 18)).



- Secure the unit carrier with 12 screws M16 x 40 and Loctite 221 and tighten them crosswise with a torque of **200 Nm** (1/ Fig. 15 / p. 18).

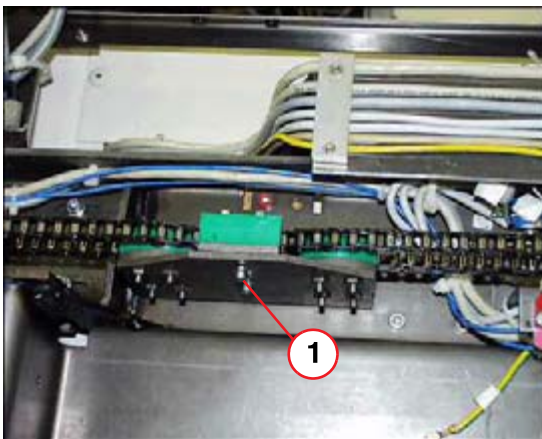


Fig. 16: Removing the transport safety device
Pos. 1 Red screw

- Remove the transport safety device below the chain guide for the transverse table drive (red screw) (1/ Fig. 16 / p. 18).

Installation of power supply module (M1)

The layout (connector overview) of M1.D1 (BUC) is shown in this document ([Fig. 64 / p. 58](#)).

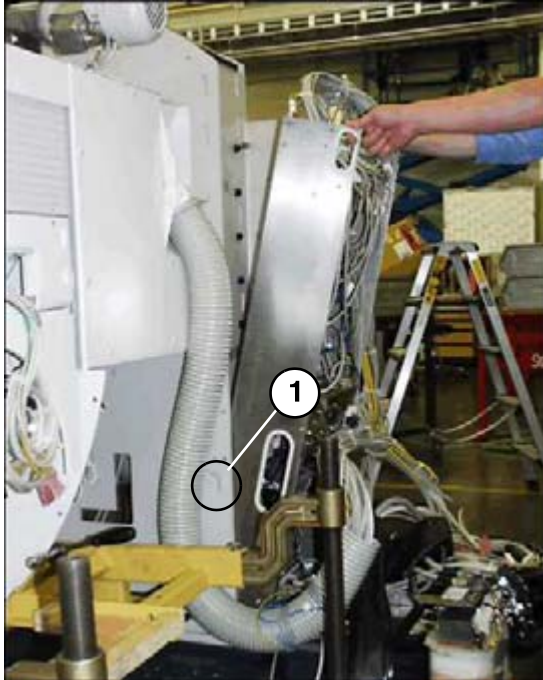


Fig. 17: Power supply module

Pos. 1 Guide bolts on the inside of the lifting base

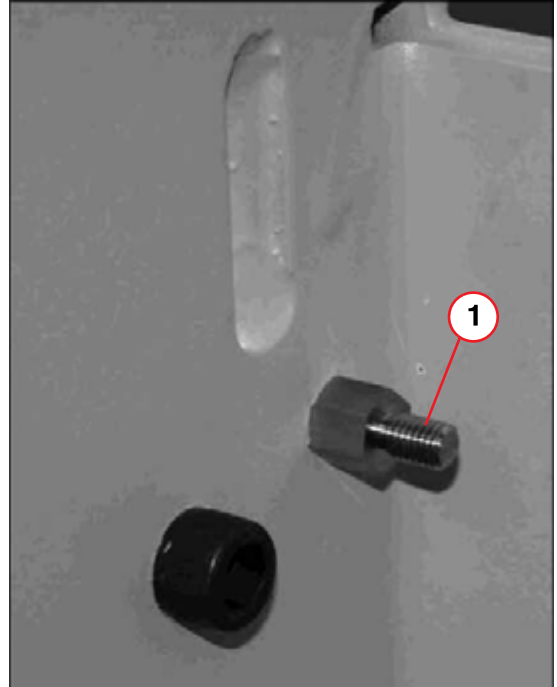


Fig. 18: Top lifting base bolt

Pos. 1 Securing the top bolt

- Remove the transport safety device (have 2 people lift the power supply module) and insert it in the guide bolts on the lifting base ([1/ Fig. 17 / p. 19](#)).
- Use 2 nuts to secure the power supply module at the upper bolt of the lifting base.
- Remove the corrugated hose from the transport frame.
- Completely remove the transport frame.

Wiring

Unit transformer

- Connect cable M2 to the transformer.
- Connect the blue lead (N) and the ground wire to module M1.

Wiring of M1/M2

- Connect the following cables to M1.X20:
 - 7 (brown),
 - 8 (black),
 - 9 (blue),
 - 10 (green-yellow).
- Plug in M1.X20.
- Screw in the strain relief device and tighten it securely.
- Plug in connector M1.X9 (fluoro acquisition) and attach the screws and safety device again.
- Plug in connectors M1.D1.X111 and M1.D1.X512.
- Plug in connectors M1.X7 and M1.D1.X300.
- Connect the following connectors to M2:
 - M2.D21.X2,
 - M2.X4 - X7.
- Screw on M2.PE.
- Plug in connector M1.D1.X110 and attach the cable clamp.

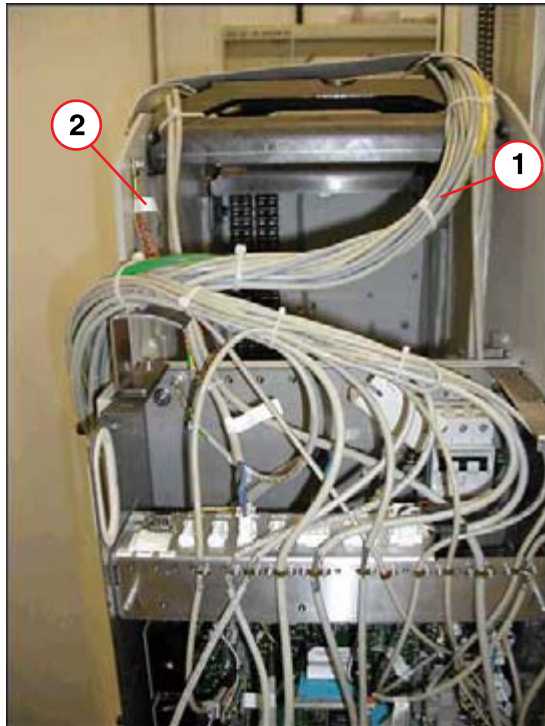


Fig. 19: Wiring

Pos. 1 Cable strand
Pos. 2 Shielding

- Run the cable strand to M2 underneath the cover (1/Fig. 19 / p. 21).

NOTE

Attach the shielding (2/Fig. 19 / p. 21).

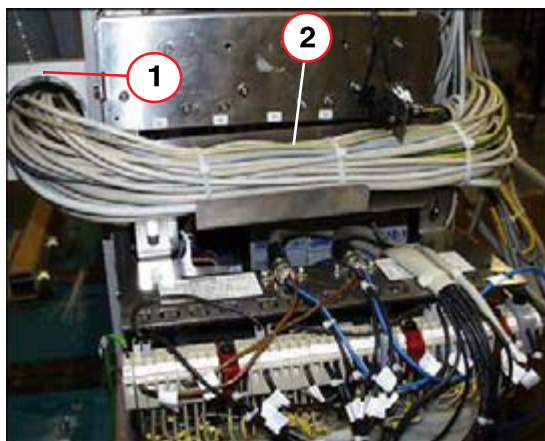


Fig. 20: Holder on the lifting base

Pos. 1 Holder
Pos. 2 Cables

- Use the supplied holder (1/Fig. 20 / p. 21) to connect the corrugated hose to the lifting base and position the cable according to (2/Fig. 20 / p. 21).
 - Take care that the corrugated hose is turned into itself, so that it lies against the lifting base

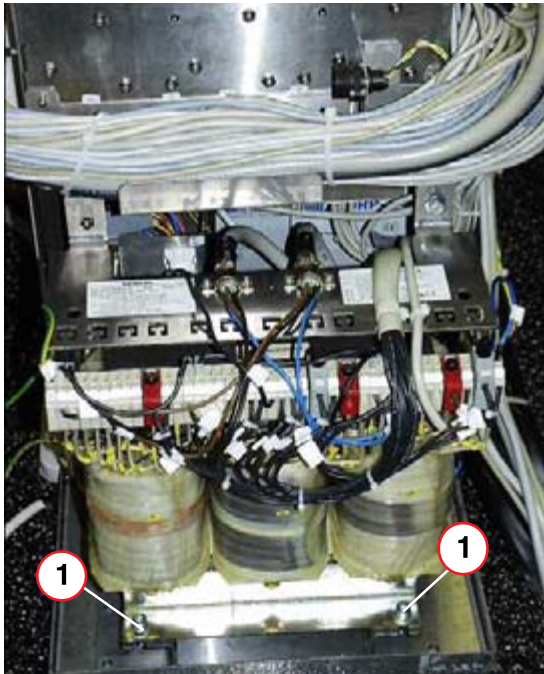


Fig. 21: Transformer T1

Pos. 1 Transformer holder

- Attach transformer T1 directly to transformer holder (1/Fig. 21 / p. 22).

NOTE

The transformer holder has a factory-installed rubber buffer.

Do not use any of the additional shims or rubber washers included with delivery to attach transformer T1 to the transformer holder.

- Route the cable for M1 and M2 according to (Fig. 22 / p. 23), (Fig. 23 / p. 23).



Fig. 22: Cable layout M1



Fig. 23: Cable layout M2

- Cable layout for a lateral cable lead-in according to (1/ Fig. 24 / p. 23).



Fig. 24: Lateral cable layout

Pos. 1 Cable lead-in

- Cable layout for the cable outlet at the back of the unit ([Fig. 25 / p. 24](#)).



Fig. 25: Cable outlet at the back of the unit

Installation of image intensifier I.I 33/I.I. 40

Reading the temperature indicators on the I.I.

NOTE

The image intensifier is provided with temperature indicators. Exceeding the permissible temperature can negatively influence image quality.

NOTE

The basic color of the temperature indicators is white. In the case of an excessive temperature, the inner square turns black.

- Check these temperature indicators as follows:

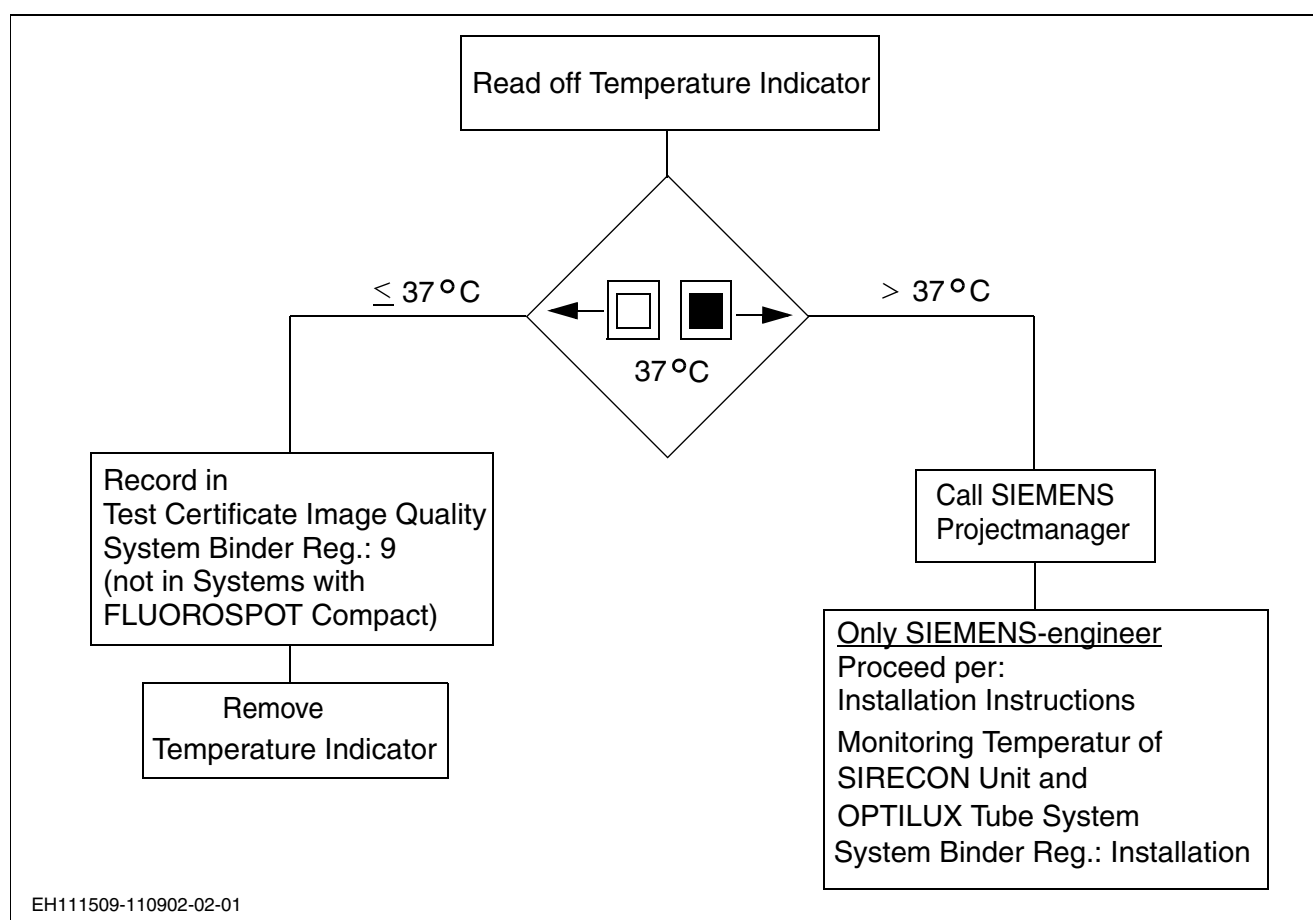


Fig. 26: Temperature indicator

Installing the collimator

- Remove the protective cover from the collimator (1/Fig. 27 / p. 26) by removing the Allen screws and threaded pins.

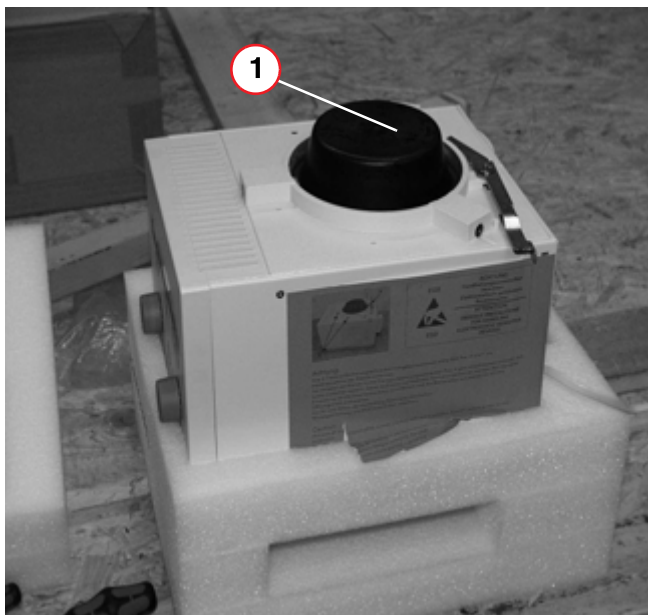


Fig. 27: Collimator installation

Pos. 1 Protective cover

- Remove the red transport safety screws from the collimator (1/Fig. 28 / p. 26).

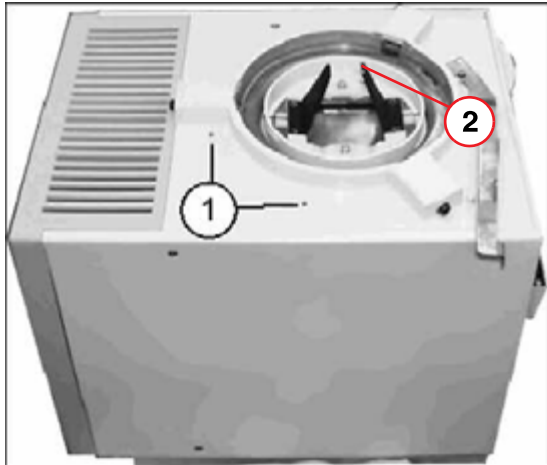


Fig. 28: Collimator installation

Pos. 1 Transport safety screws

Pos. 2 Blades

- Mount the collimator on the tube assembly flange and align it (1/Fig. 29 / p. 27).

NOTE

Do not damage the collimator blades (2/Fig. 28 / p. 26).

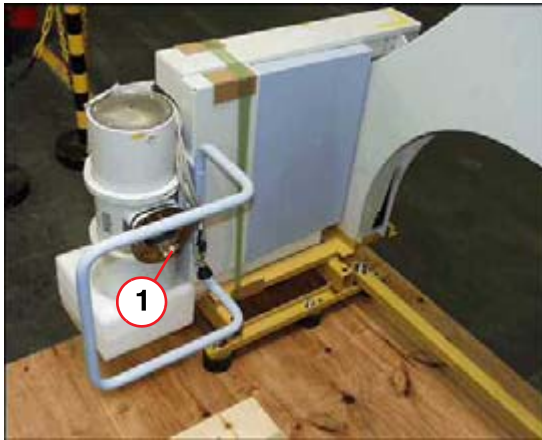


Fig. 29: Installing the collimator

Pos. 1 Tube assembly flange

- Connect connector M9.Z66.X1 to the back of the collimator.
 - Clamp the cables with the exposed shielding braid under the strain relief device.
- Connect the KermaX cables (optional) together and store them in the tube assembly attachment.

Installing the TFT support arm

NOTE

This section describes the delivery condition of the UROSKOP Access as of 1/2005 and relates to the TFT support arm with monitor type DSC 1703 DC-V.

NOTE

Installation of the TFT support is identical for the left and right sides but is performed laterally reversed on the opposite side of the lifting base.

⚠ CAUTION

Uncontrolled tilting of the support arm may involve risk of injury. Proceed with extreme caution.

- ⇒ 2 persons are necessary for installing the TFT support arm (approx. 75 kg).
- ⇒ The transport safety devices (1/2/Fig. 30 / p. 28) may be removed only after the support arm has been installed on the lifting base.



Fig. 30: Transport frame for the support arm

- In the right-side unit layout, screw the flange bolts into the bottom left thread (M8) of the 5 fastening threads on the unit connection of the TFT support arm (Fig. 33 / p. 30) if not already installed at the factory.

NOTE

The 5 fastening threads are located on the back of the lifting base.

- Screw the securing nut onto the bolt (Fig. 33 / p. 30).
- Remove the holder for the TFT support arm from the transport frame (Fig. 31 / p. 29).



Fig. 31: Support arm attachment

CAUTION

The subsequently described loosening of the cylinder-head screws results in a risk of injury.

Proceed with extreme caution.

⇒ Secure the TFT support arm when loosening these screws.

- Loosen the remaining 4 of the total of 5 cylinder-head screws M8 x 25 DIN 912 (1/ Fig. 32 / p. 30) and remove them with the underlying washers 8,2 x 20 x 2.

NOTE

Ensure that the radiation warning light is not damaged, for example.

- Loosen all cylinder-head screws M8 x 25 DIN 912 from the wedge-shaped transport holder (2/ Fig. 32 / p. 30) and remove it.

NOTE

Follow a laterally reversed procedure for a left-side unit layout.

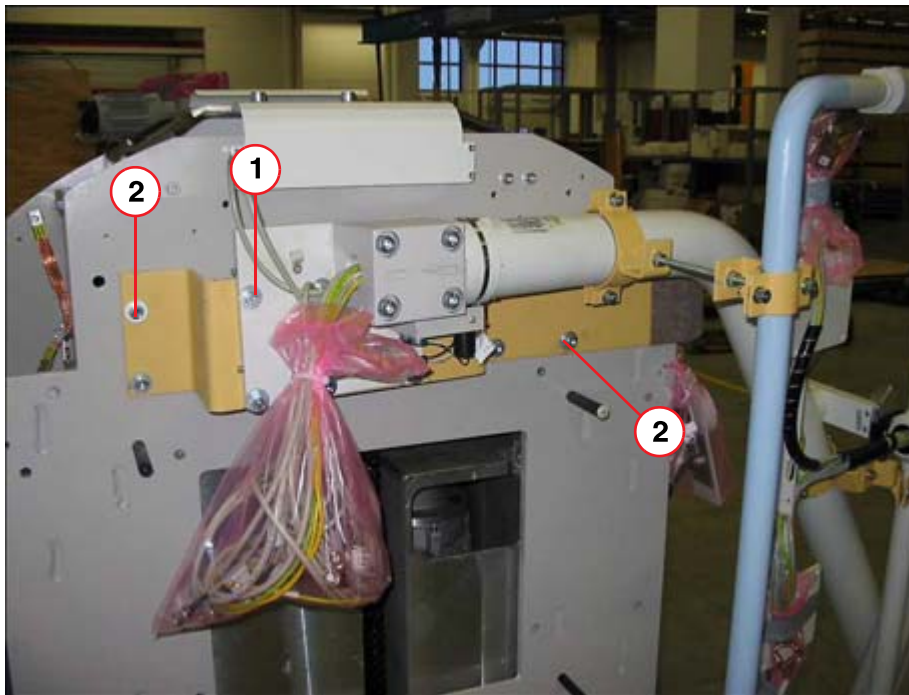


Fig. 32: Unit connection - transport

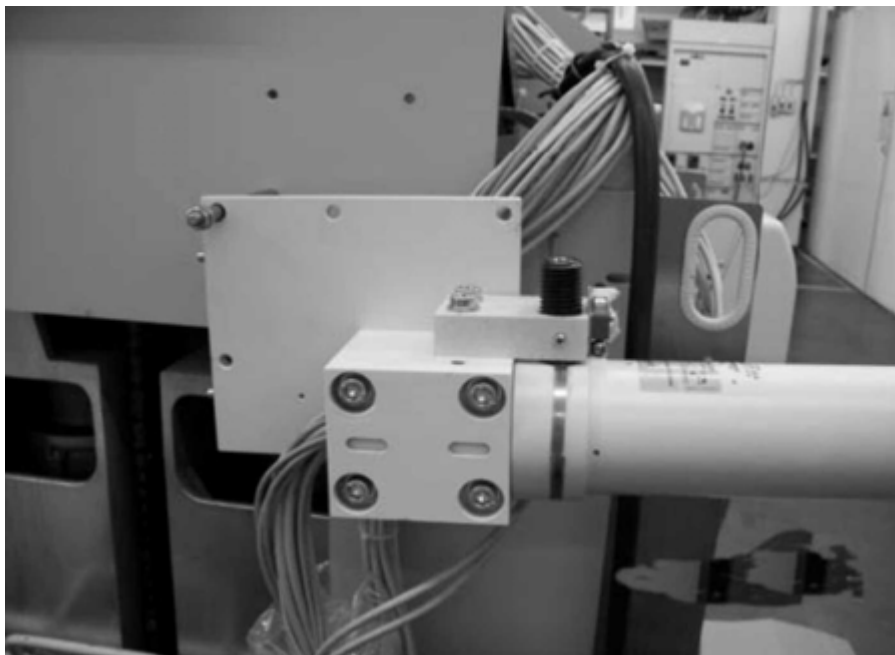


Fig. 33: Unit connection for the support arm

- Move the TFT support arm upward over the bolt.

NOTE

The second person secures the support arm to prevent tipping.

- Secure the unit connection of the TFT support arm via the 4 already removed cylinder-head screws M8 x 25 DIN 912 incl. washer 8,2 x 20 x 2 to the lifting base (1/Fig. 34 / p. 31).
- Remove the bolt (Fig. 33 / p. 30).
- Screw in the fifth cylinder-head screw M8 x 25 DIN 912 incl. washer 8,2 x 20 x 2 instead of the bolt.

NOTE

Use a level to align the unit connection (Fig. 34 / p. 31).

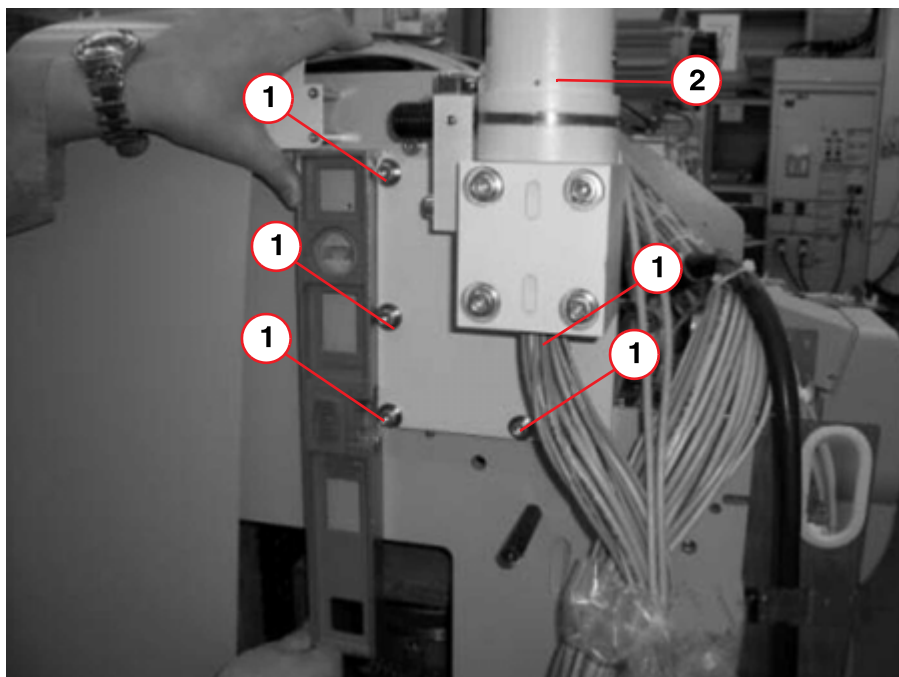


Fig. 34: Support arm connections

- Tighten all 5 cylinder-head screws M8 x 25 DIN 912 with a tightening torque of 23.5 Nm +/- 0.5 Nm.
- Secure the 5 cylinder-head screws with Loctite 221.
 - Loctite 221 is included in the scope of delivery.
- Screw partial harness W650 with the interface plate onto the unit connection via 2 screws M4 x 10 DIN 912 (1/Fig. 35 / p. 32).

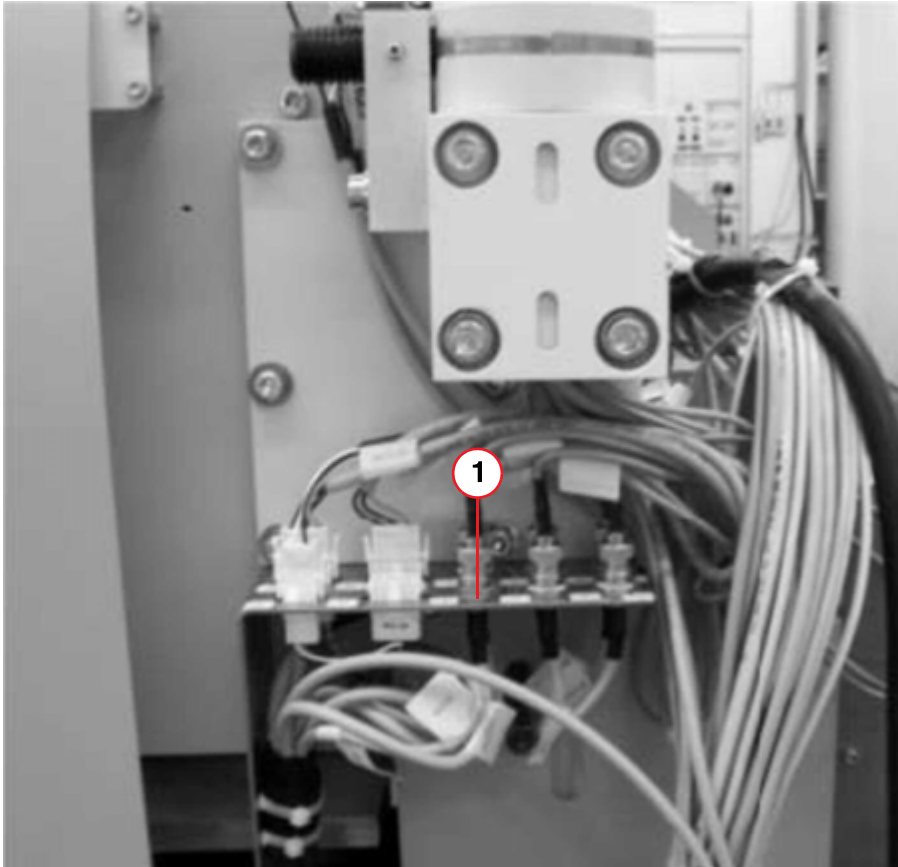


Fig. 35: Support arm connections

- Plug the cables from the TFT support arm into the connectors of the interface plate according to their designations.
- Screw the 3 ground wires (M1.PE) onto the central ground point of module M1 via 1 lock washer S4, 1 serrated washer A4,3 DIN 6798, and 1 screw M4 x 12, DIN 912.
 - The fastening means are included in the scope of delivery.
- Plug cable M1.X518 into the corresponding connector of BUC (module M1).
- Run the 2 cables with BNC connector (Y, C) and 9-pin connector X1 to the endoscopy interface and plug them in according to the labels.
- Fasten the cables to the fastening bolt for the back wall.

NOTE

If there is no endoscopy interface option, fasten the cable ends to the fastening bolt so that safe operation is ensured.

- Attach connector M12.X5 with cable ties to partial cable harness W650 since it is not used for the UROSKOP Access.
- Remove the transport safety devices from the TFT support arm ([1/2/Fig. 30 / p. 28](#)) and store these for disassembly of the TFT support arm.
- Install the TFT flat screens according to the document "Installation instructions; TFT Pendant system; UROSKOP Access" of the Ondal company.
- Attach the flat screens with 4 hexagon-socket-head cap screws M4 x 16.

CAUTION

Risk of injury, risk of damaging the flat screen!

Insufficient attachment of the TFT monitors to the support arm can result in injury to patients/operating personnel and damage to the monitors.

- ⇒ Properly attach the flat screens with 4 hexagon-socket-head cap screws M4 X 16.

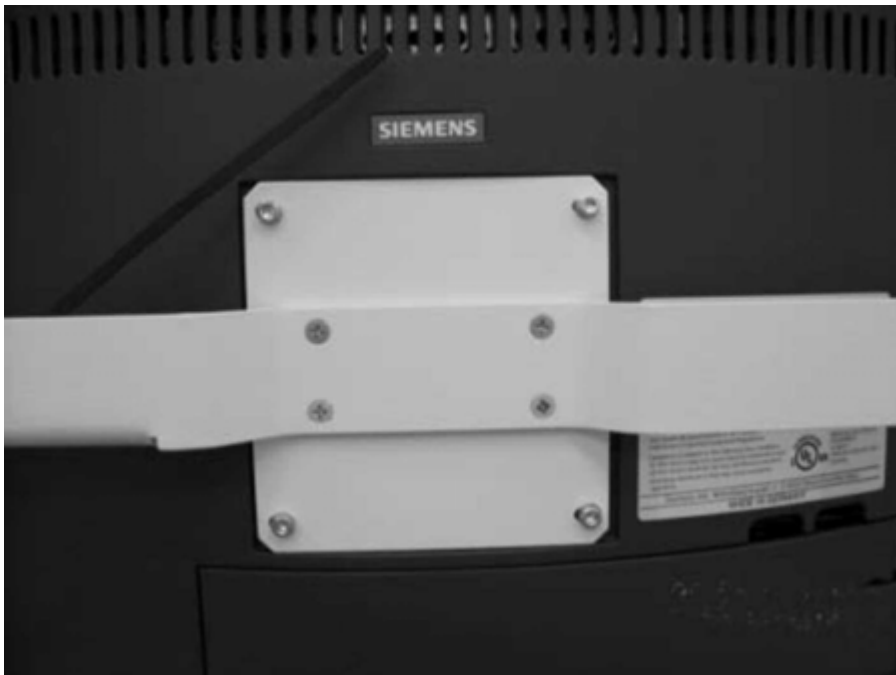


Fig. 36: Monitor attachment on the back

- Push the flat screen lightly together in the middle until there is no more gap.
- Position the flat screens at the same height, adjust to be parallel, and secure them via screws.
- Close the cables of the TFT support arm according to the labels.

NOTE

The cables must not be bent or crushed during installation and when attaching the cover.

- Fasten the cables via cable ties to the traverse element ([Fig. 37 / p. 34](#)).



Fig. 37: Cable attachment - back of the TFT support arm

General information

Labeling of the cable harnesses

- The supplied cable harnesses are labeled at the zipper hose ends as follows:

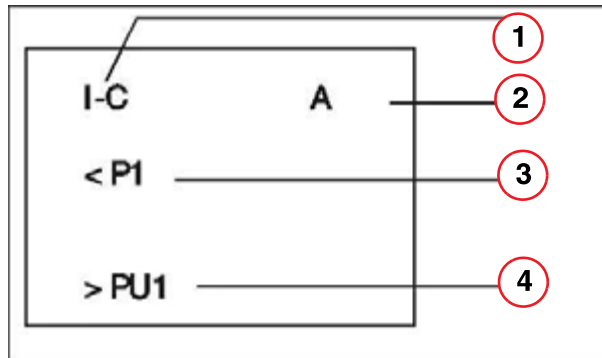


Fig. 38:

- Pos. 1 Name of the cable harness
Pos. 2 Level
Pos. 3 Fixed point at which this cable harness is inserted
Pos. 4 Target designation (other cable harness end)

- Run the cable harnesses according to the fixed point designation and feed them into the relevant cabinet from below, behind, on the left or right.
 - The zipper hose must project about 10 cm into the cabinet.

NOTE

The cables are labeled and provided with connection elements.

NOTE

The high-voltage cables are to be run separately. The cables are to be positioned so that the components can be swiveled out.

List of fixed points

Cable harness no.	From fixed point	To fixed point	Cable harness cross-section in mm ²	Tube, clear width in inches	Minimum opening in mm	Maximum fixed point distance in m	Comments
1	P1	PU1	3125	2 1/2 - 3	Ø 63-75	15	W100 tube assembly/generator 2x high-voltage cable + control cable
2	P1	PU1	780	2 1/2	Ø 63	15	W150 system (I.I.)/generator
3	P1	PU1	3125	3	Ø 75	15	W400 system (M1)/generator
4	IS	PU1	2000	2	Ø 50	18	W600 generator/imaging system
5	CR1	P1	280	3	Ø 75	20	W360 system/control console
6	P (MTA)	IS	780	1 1/2	Ø 38	18	W650 imaging system/TFT support arm
7	P1	IS	125	2	Ø 50	18	Cable for CCD camera X10
8	Network socket	R2	-	-	-	-	Delivery depends on the manufacturer of the paper printer
9	Network socket	IS	140	1	14 x 10	4	Network socket
10	VK	EN	125	1	Ø 10	15	Endo shelf (optional) Delivery length 20 m (3 x 1.5 mm ²)
11	VK	PU1	-	-	-	-	Network supply line
12	P1	PU1	-	-	45 x 15	15	Iontomat cable

Fixed point	Subsystem
CR1	Monitor table
EN	Endo shelf

Fixed point	Subsystem
IS	Imaging system
MTA	TFT monitor support arm
P1	Unit
PU1	Generator
R2	Paper printer
VK	Network distributor box (on-site)

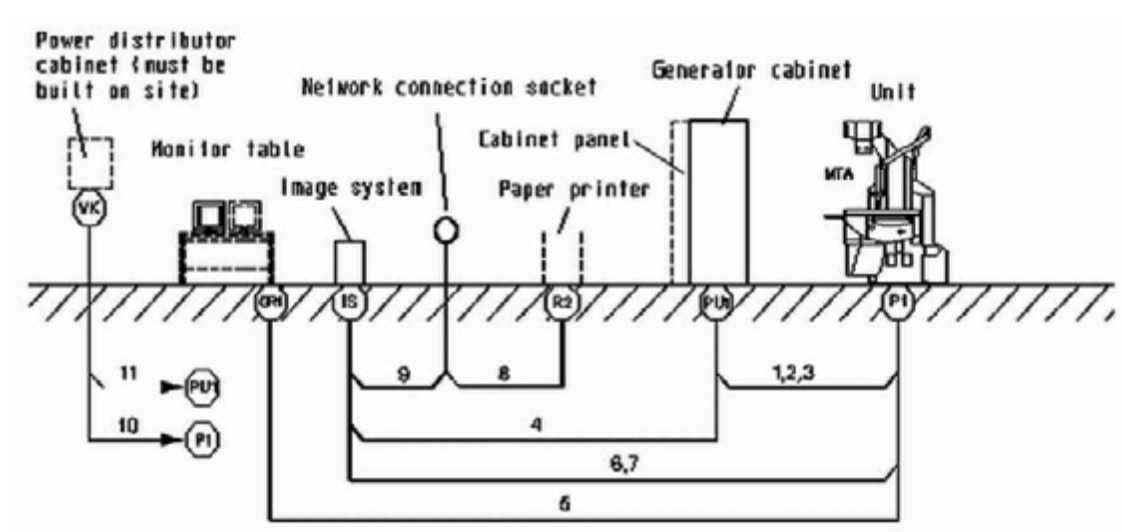


Fig. 39: Fixed point overview

- Feed the power cables into the cabinets from below.
- Secure the plug connections via the screws to the extent possible.
- Relieve the cables of tension, apply the shielding.

NOTE

Excess cable is to be routed in a meandering manner and not coiled. Additional cable storage space (standard for the generator) is provided for excess cable.

- Use 2 threaded bolts and washers (2/Fig. 40 / p. 38) to install the hangers (1/Fig. 40 / p. 38) at the top and bottom of the side generator cover.
 - Excess cable can be secured in a meandering manner to the hangers on the generator cover via cable ties (Fig. 41 / p. 38).
 - The cable storage space cover is secured by the 4 threaded bolts.



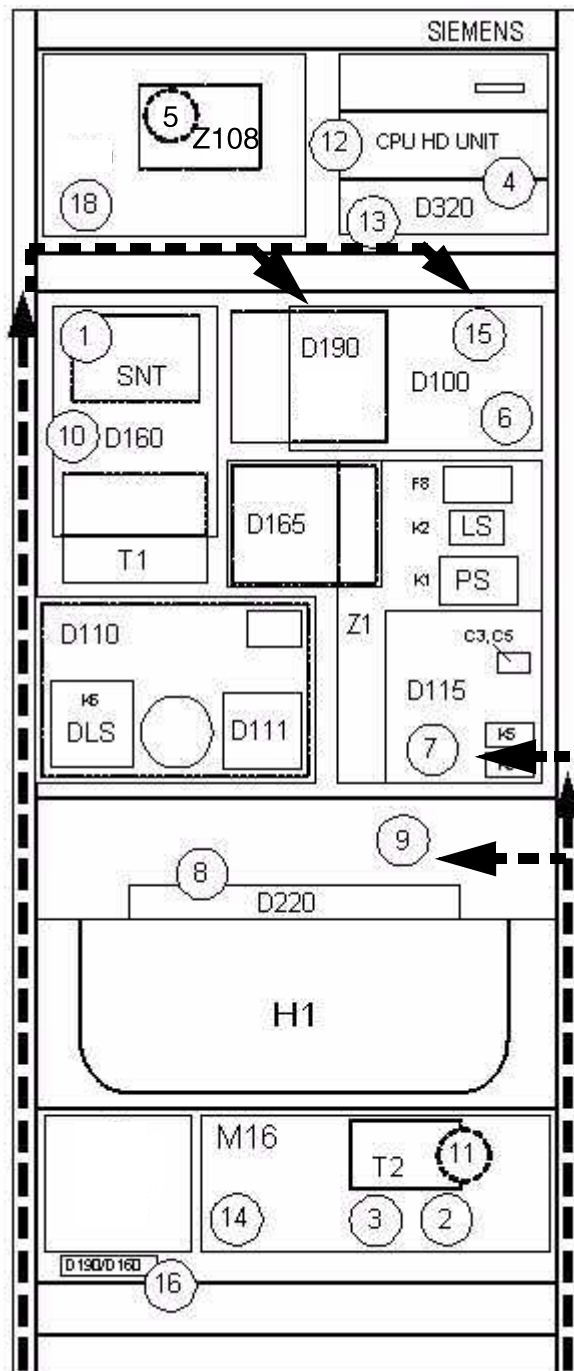
Fig. 40: Hanger - cable storage space



Fig. 41: Cable routing in the cable storage space

POLYDOROS SX65/80 cabling

Overview: cable connection and cable layout in the generator cabinet



- 1 Connection of the control panel
- 2 Generator power connection
- 3 System power connection
- 4 XCS connection
- 5 I.I. power supply
- 7 Connection of the rotating anode cables
- 8 Connection of high-voltage transformer H1
- 9 Connection of the high-voltage cables
- 10 Connection of the monitoring systems
- 12 hard disk
- 13 Service PC connection
- 14 Connection of the ground wire (tube assembly, unit base)
- 15 Connection of the IONTOMAT detectors
- 16 Connection of the I.I./TV iris
- 18 Connection of the KermaX (optional)

Fig. 42: Polydoros SX

Generator power connection

NOTE

The PE ground wire must be highly flexible. The armor shielding of the power supply cable must not be used.

- Connect power supply cables L1, L2, L3, N, PE to terminal block K20 (Fig. 43 / p. 40).
 - Be sure to connect them in the correct phase sequence.

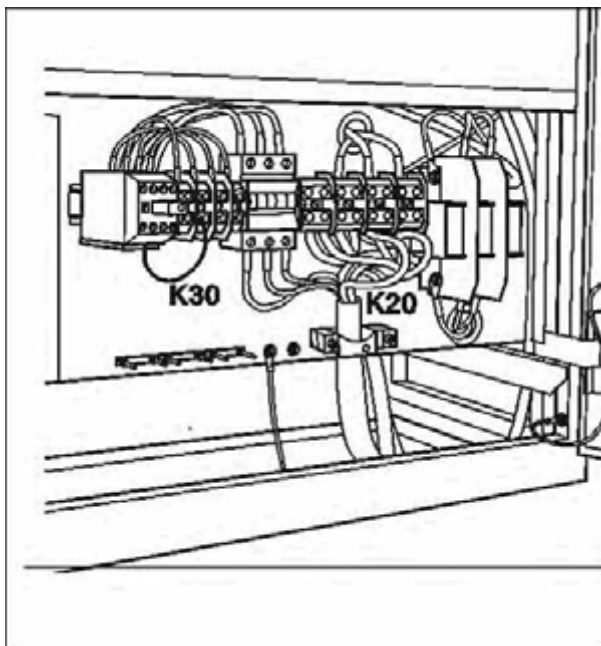
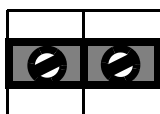


Fig. 43: Power connection

CAUTION

Check the jumper at the terminals in M16.K20.

- ⇒ In the case of systems without an FI protective switch or N lead, the bridge is to be used (see figure below). The bridge is located in the accessory bag.



2-pole jumper for systems without an FI protective switch or N lead.

Connecting the rotating anode cables

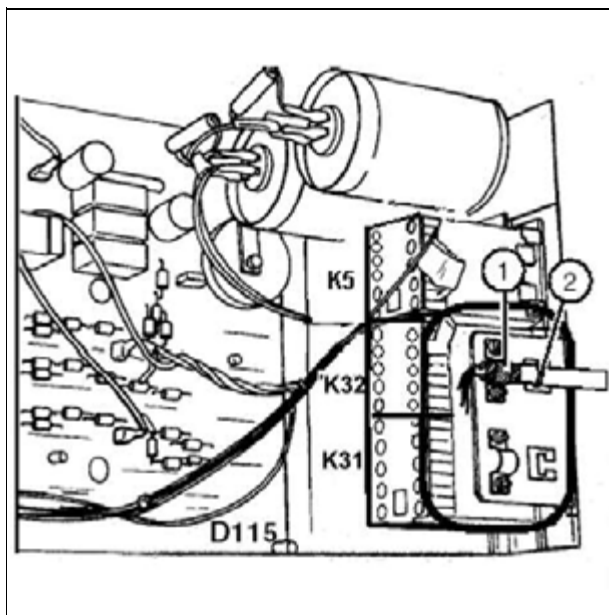


Fig. 44: POLYDOROS SX 65/80

- Draw the rotating anode cables into the frame of the power cabinet on the right side and run them up to the starter.
- Clamp the shielding braid of the cable to the right side of the starter under the upper clamping clip (1/Fig. 44 / p. 41).
- Use cable ties (2/Fig. 44 / p. 41) to relieve cable tension.
- Connect the cables as follows:

Stator cable	Starter with K3 (old version)	Starter with K31/K32 (new version)
0	K3.R4	K31.R4
I	K3.R2	K31.R2
II	K3.R6	K32.R2

Connection of the Iontomat measuring chamber

- Connect the SDM measuring cable to D100.X28(F) (1/Fig. 45 / p. 42) and secure the connector locking mechanism.
- Connect the Iontomat cable to D100.X33(A) (2/Fig. 45 / p. 42).

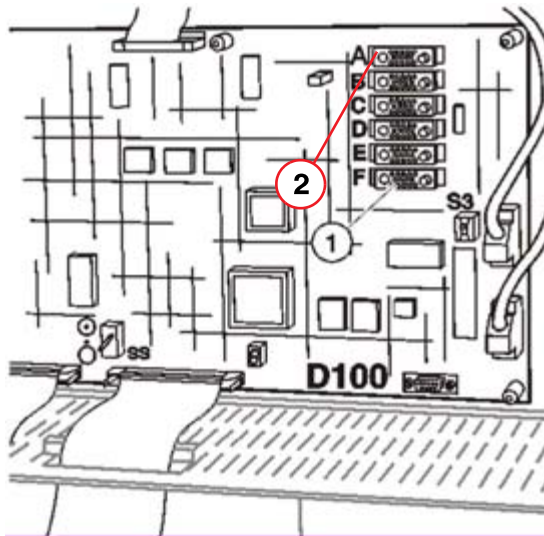


Fig. 45: Connection of the Iontomat measuring chamber

Pos. 1 D100.X28(F)

Pos. 2 D100.X33(A)

Connection of the HV trigger/gray filter

- Connect the cable with plug names D190.X10 and D190.X11 to the I.I./TV iris connection (16/Fig. 42 / p. 39).

XCU cable connection

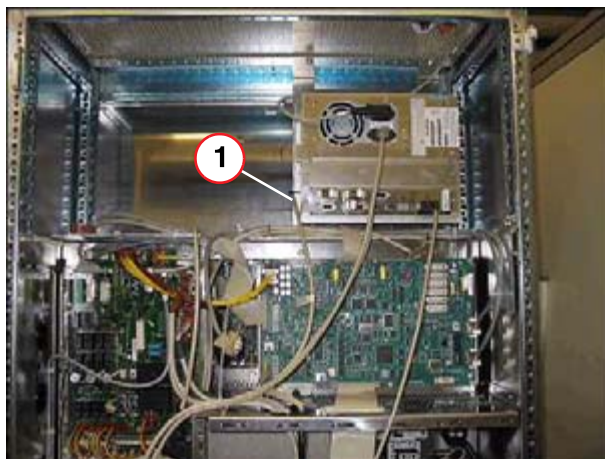


Fig. 46: XCU cable connection

- Connect the CAN cable with designation N10.D100.X10 on the left side of the XCU to D100 (1/Fig. 46 / p. 42).

Inserting the high-voltage transformer into the generator cabinet

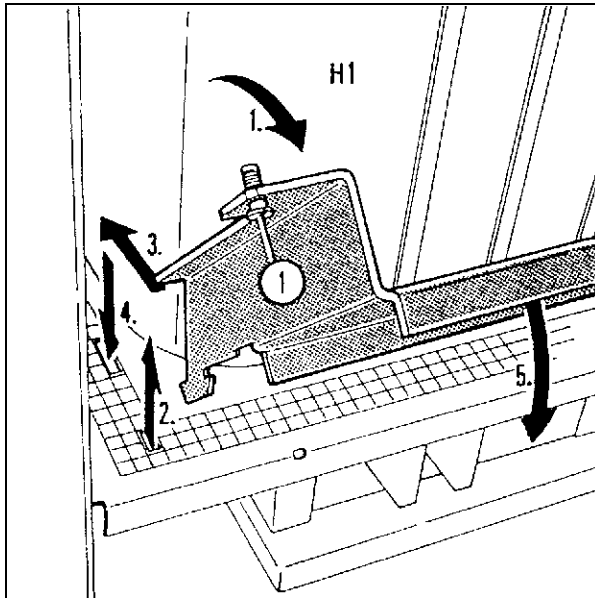


Fig. 47:

- Open the bayonet closures of the support (1/Fig. 47 / p. 43).
- Relocate and fold out the support for the high-voltage transformer according to (Fig. 47 / p. 43).
- Push the pallet with the high-voltage transformer in front of the power cabinet.
- Place the high-voltage transformer on the support.

CAUTION

Do not tilt the high-voltage transformer!

⇒ **Hold the transformer horizontal!**

Connecting the high-voltage cables

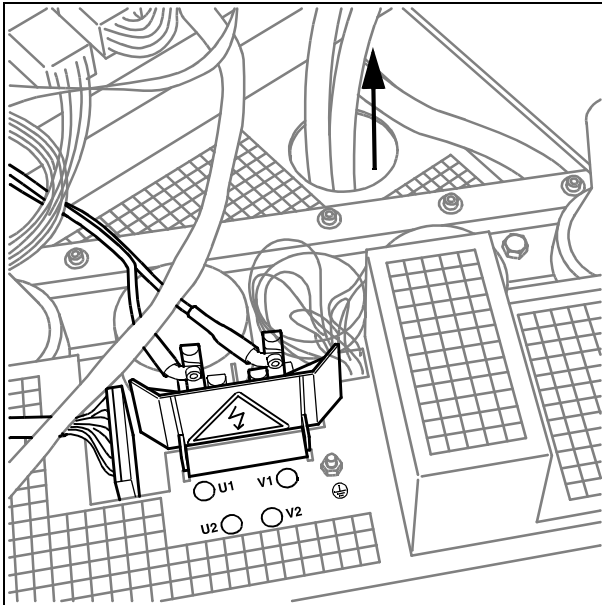


Fig. 48:

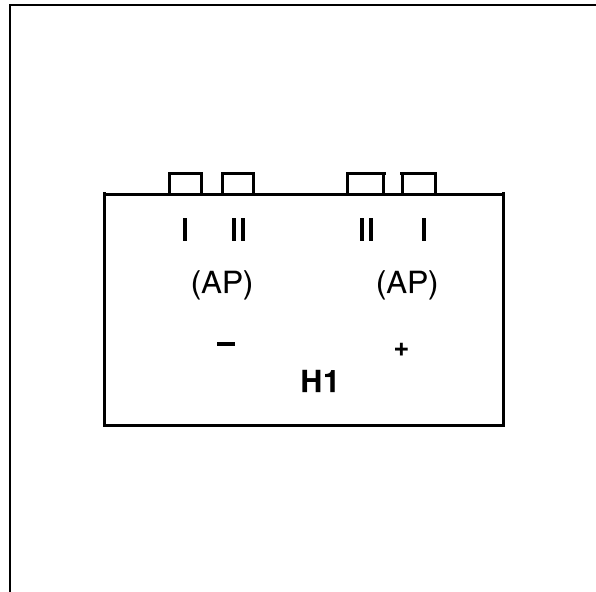


Fig. 49:

- Run the high-voltage cable up to the high-voltage transformer (Fig. 48 / p. 44).
- Install the high-voltage connectors for HV cable type RH 098-5DF6 071 as follows:
 - Consult the document “X-Ray Diagnostic System; Installation Instruction; High voltage cable RH 098-5DF6 071” (only necessary if the threaded rings have been loosened).
 - Check the oil level in the high-voltage receptacles (approx. 1 cm). If necessary, fill them with silicone oil AK350 (material number 17 87 035).
 - Insert the high-voltage plugs in H1 as designated (Fig. 49 / p. 44).
 - Tighten the union nuts and secure them with the threaded pins.

Connecting the primary cables

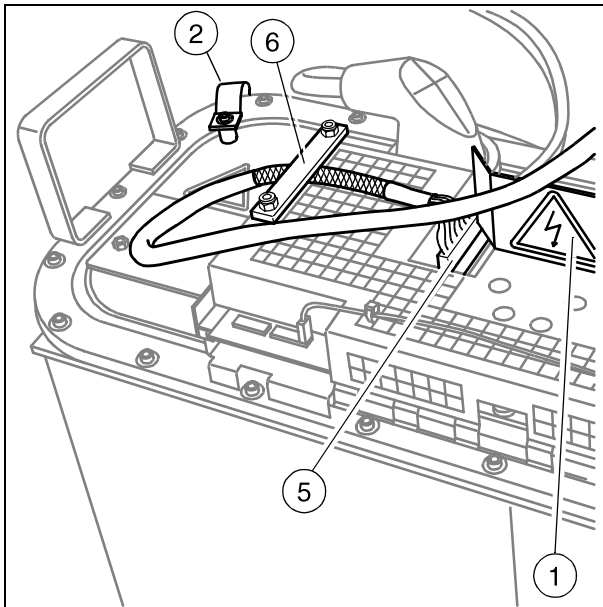


Fig. 50:

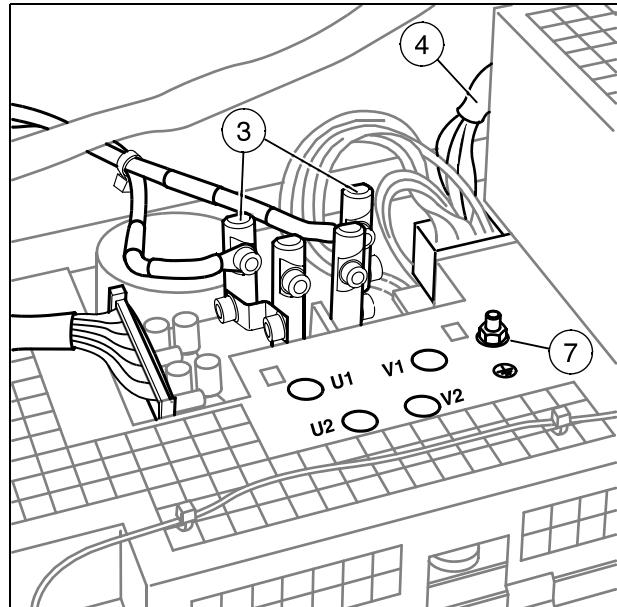


Fig. 51:

- Carefully remove the contact protection on D220 (1/Fig. 50 / p. 45).
- Connect the ground wire clamp to H1 (2/Fig. 50 / p. 45).
- Fasten twisted leads H1.U1 and H1.V1 from the inverter modules to H1 as designated (3/Fig. 51 / p. 45).
- Run the cable connected to D220.X41 (4/Fig. 51 / p. 45) upward to board D160 and connect it to X44. Clamp the shielding braid at the cable end with connector X44 under the prepared clip underneath board D100.
- Connect the X1 cable from D100 to X1 on D220 (5/Fig. 50 / p. 45).
- Clamp the shielding braid under the strain relief device.

NOTE

There must be a ground connection between the cover and ground.

- Check the nut of the grounding bolt (7/Fig. 51 / p. 45) for firm seating and tighten it if necessary.
- Reattach the contact protection (1/Fig. 50 / p. 45).
- Push high-voltage transformer H1 into the power cabinet and snap in the bayonet closures.
- Plug in the connection cable for the fan at X19 (+24 V; red lead - PIN A; blue lead - PIN B).

Monitoring devices and displays for radiation protection

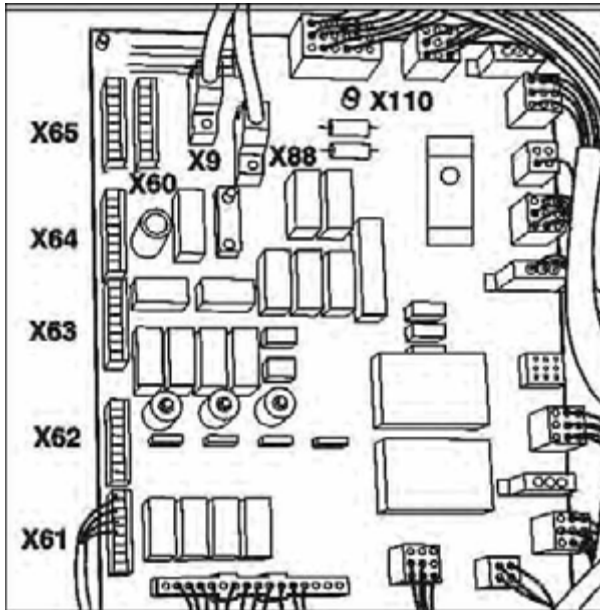


Fig. 52: Power cabinet connections

- At the customer's request or if required by country-specific regulations (e.g. DHHS), the following monitoring devices and displays can be connected in the power cabinet to D160.X61 through X64 (Fig. 52 / p. 46):

Connecting the door contact for radiation blocking

- A door contact can be looped in series to the oil pressure switch between the following points:

D160.X61.3 and D160.X61.4

Connecting the display lights for the radiation display

(e.g. in front of the door of the examination room)

- If an external radiation display for fluoroscopy and exposure is desired, 2 voltage-free contacts (230 V, max. 4 A can be switched via these contacts) can be provided on board D160 with the following connections:
 - D160.X60.7-8
 - D160.X60.5-6

Display occurs with pre-contact:	Bridge X38.1-2 connected to D160
Display only with radiation:	Bridge X38.2-3 connected to D160

Room lighting control

A control voltage (24 V~) is provided via D160.X64.5-6 for control purposes. A power surge relay can be controlled via this.

Control voltage (24 V~, max. 1 A) for power surge relay:	Bridge X8.1-2 connected to D160
Voltage -free normally open contact:	Bridge X8.2-3 connected to D160

Connecting the ground wires

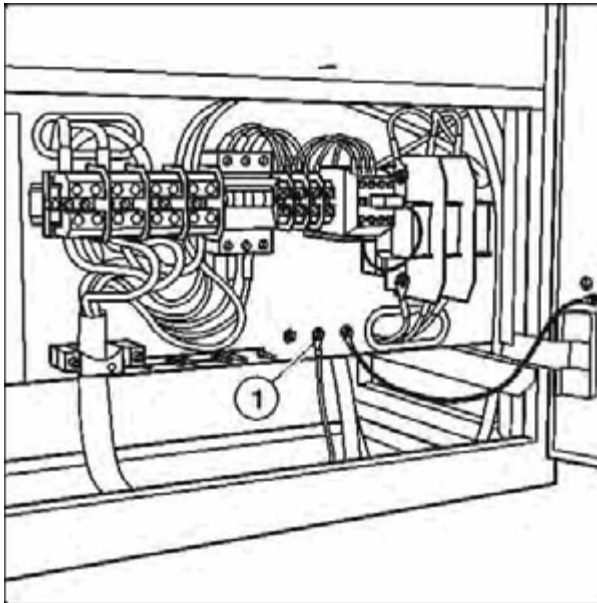


Fig. 53: Ground wire connection

- Connect the ground wires of the tube assembly in the system cabinet to the ground wire connection points (1/Fig. 53 / p. 47) in the generator on M16.

NOTE

To avoid disturbances due to ground loops, run the ground wires in a star pattern to the central ground wire connection point.

Monitors in the control room

The following monitor types are available for selection for the control room as live and reference monitors:

1. Flat panel - Siemens DSB 1803 DC (18.1"), S/W - 1280 x 1024 pixels (part number 77 28 657).
2. Flat panel - Eizo Radiforce R11 (18.1"), color - 1280 x 1024 pixels (part number 30 99 553).

NOTE

It must be distinguished for each monitor during installation whether the system is with/without a urodynamics interface.

Systems without a urodynamics interface

- The back of monitor 1 is connected via a 3-m BNC/BNC monitor cable, which is provided in the imaging system container, to the BNC outputs at the video splitters (connections R OUT, B OUT, G BAS OUT) (Fig. 59 / p. 54). The live monitor is connected to the front video splitter and the reference monitor is connected to the back splitter.
- Monitor 2 must be connected according to the figure via a DVI adapter (part number 77 48 531) (Fig. 54 / p. 49) and a 3-m SVGA/BNC monitor cable (part number 30 79 035) which is provided with the Eizo monitor to the BNC outputs at the video splitters (connections R OUT, B OUT, G BAS OUT, SV OUT, SH OUT) (Fig. 85 / p. 74). The live monitor is connected to the front video splitter and the reference monitor is connected to the back splitter.

Systems with a urodynamics interface

Live monitor

- The back of monitor 1 is connected via a 3-m SVGA/BNC cable (part number 30 79 035) to the PC-OUT output (SVGA) of the scan converter.
- The back of monitor 2 is connected via a DVI adapter (part number 77 48 531) (Fig. 54 / p. 49) and a 3-m SVGA cable (part number 30 89 496) to the PC-OUT output (SVGA) of the scan converter.

Reference monitor

- Monitors 1/2 are connected as described in chapter (Systems without a urodynamics interface / p. 48).

NOTE

In the case of problems with image display on the Urodynamic workstation, the data according to the document "Installation and Start-up; Urodynamic Interface/Scan Converter" (SPL5-330.814.01.xx) is to be reviewed.

Explanations of the various monitor types

Eizo Radiforce R11

- The Eizo Radiforce R11 monitor is to be installed as a live and reference monitor in the control room as described below.

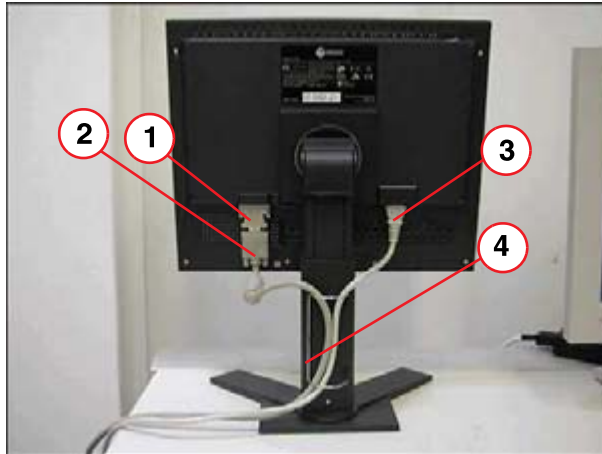


Fig. 54: Eizo Radiforce R11 monitor (back)

- Pos. 1 DVI adapter
 Pos. 2 SVGA/BNC monitor cable
 Pos. 3 Power cable
 Pos. 4 Support bracket



Fig. 55: Eizo Radiforce R11 monitor

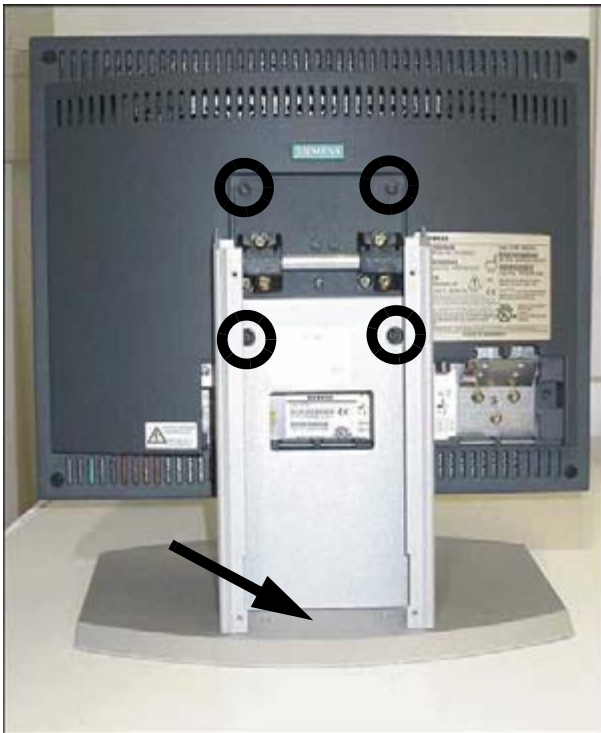
Siemens DSB 1803-DC

Fig. 56: Siemens DSB 1803-DC monitor

- The Siemens DSB 1803-DC monitor is to be installed as a live and reference monitor in the control room as described below.
- Lay the display down and then attach the separately packed monitor base to it via the 4 supplied screws as shown in the figure (Fig. 56 / p. 50).
 - Be sure to remove the rear monitor base cover by pulling the recessed grip in a backward direction (see arrow position (Fig. 56 / p. 50)) prior to assembly. This cover is already removed in the figure (Fig. 56 / p. 50).
- Replace the black rubber lip around the periphery of the display with the supplied silver rubber lip.
- Connect the power cable and the image signal cable of the monitor to the display.
- Set the power switch to the "ON" position.
- Attach the rear cover to the monitor base.

FLUOROSPOT Compact imaging system container

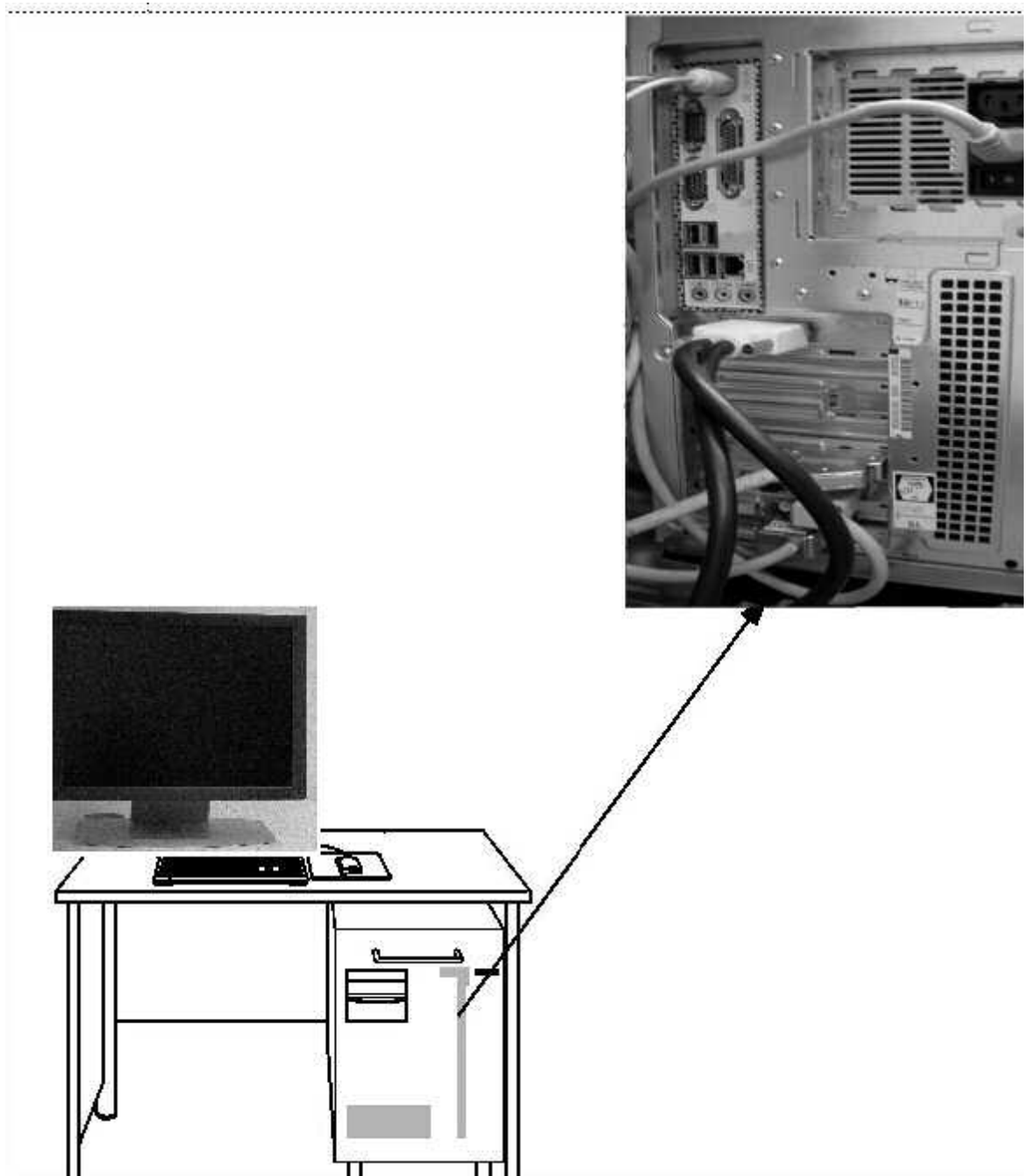


Fig. 57: Imaging system container

- Install the imaging system container at the location indicated in the project plan.
- Ensure a sufficient distance from the tabletop - at least 10 cm.

NOTE

To connect the imaging system container, it is necessary to open the cover, side wall and rear wall of the container (access to M16, transformer, power supply connection, and interfaces).

- Position cable harness W650 of the TFT support arm with respect to the imaging system container.
- Install cable harnesses W600 and W650 as described in the section [\(Cable harness installation / p. 59\)](#).

NOTE

Strain relief is generally provided for all external cables. Cable ties to be attached to the provided punched holes in the M16 housing (imaging system container) are used for securing the cables. The stripped cable shields are to be clamped under the corresponding cable clips.

Mouse

- Connect the mouse to the right connection with the **mouse** symbol [\(1/Fig. 58 / p. 53\)](#).
- Provide strain relief via cable ties at the punched holes.

Network

- Connect the imaging system PC to the network via an unshielded twisted pair lead [\(7/Fig. 58 / p. 53\)](#).

NOTE

In the event in which no network connection is initially provided, this lead should be attached to the back wall of the imaging system container via cable ties.

Keyboard

- Connect the keyboard cable to the left connection with the **keyboard** symbol [\(2/Fig. 58 / p. 53\)](#) (next to the mouse connection) and secure the cable via cable ties.

NOTE

Use the supplied extension to extend the keyboard cable.

Laser printer connection**NOTE**

The laser printer (paper printer) is to be connected to the hospital network in the case of an existing network connection of the UROSKOP Access. The configuration of the paper printer is described in document "UROSKOP ACCESS; Help-File FLC" (SPL5-330.880.01.xx). This help file is installed on the imaging system PC during start-up.

Back of the imaging system PC (cabling only as an example)

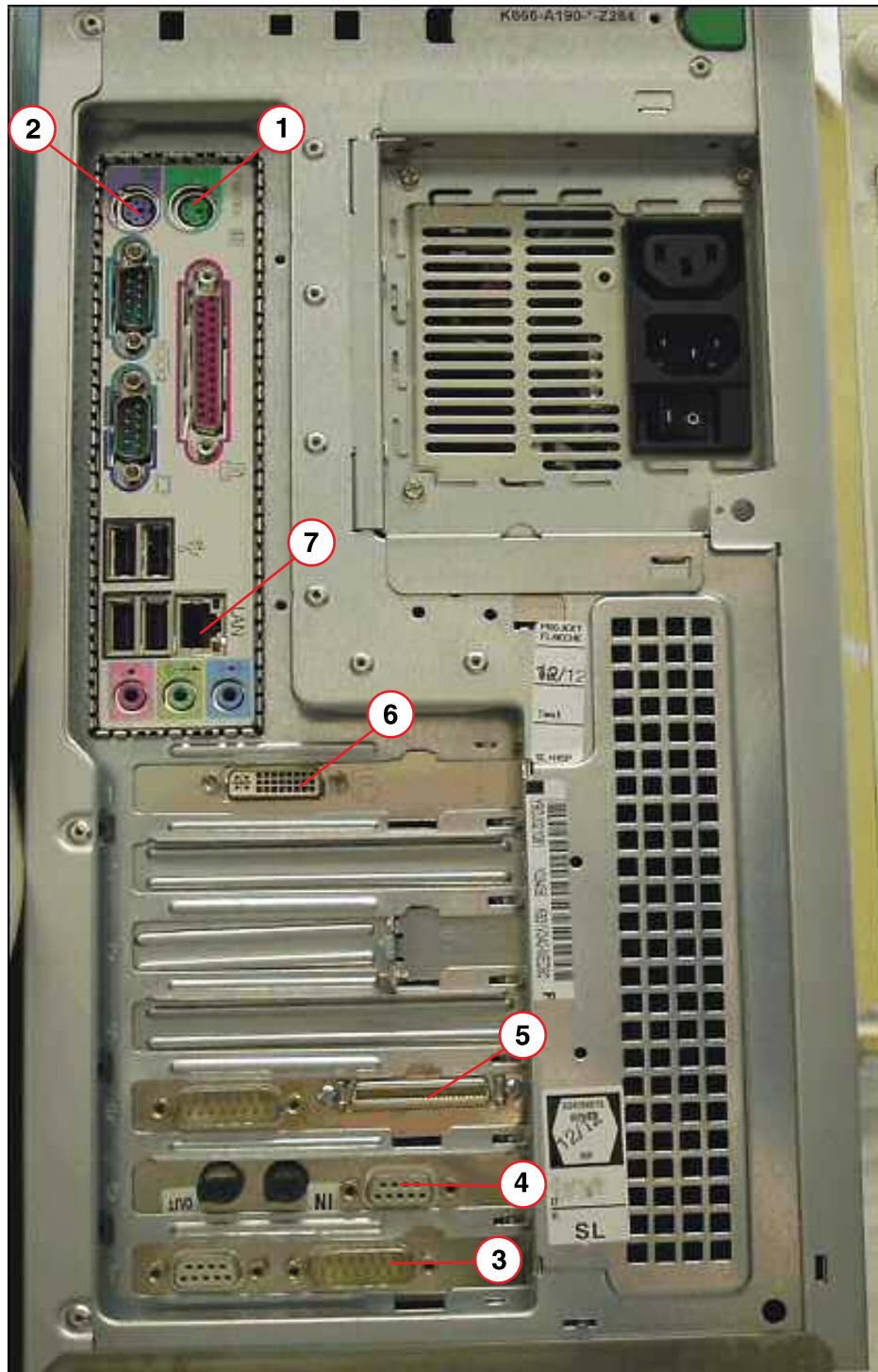


Fig. 58: Rear side of the imaging system PC (cabling shown as an example)

- Pos. 1 Mouse connection
- Pos. 2 Keyboard connection
- Pos. 3 Connection D1 imaging system container
- Pos. 4 XCS bus cable
- Pos. 5 Camera connection
- Pos. 6 Graphics card connection (life and reference monitor)
- Pos. 7 LAN connection

Cabling of the imaging system container

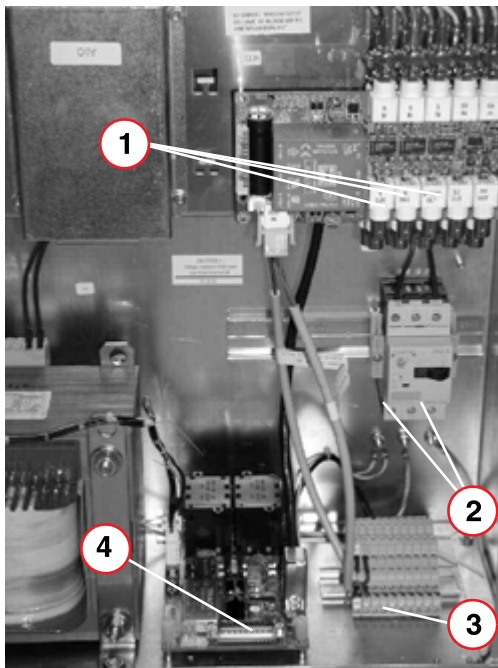


Fig. 59: *Imaging system container cabling*

- Pos. 1 Monitor connections
- Pos. 2 Connection points of the 400 V/440 V/480 V voltage supply from the generator
- Pos. 3 M16.K2
- Pos. 4 M16D1.SK111

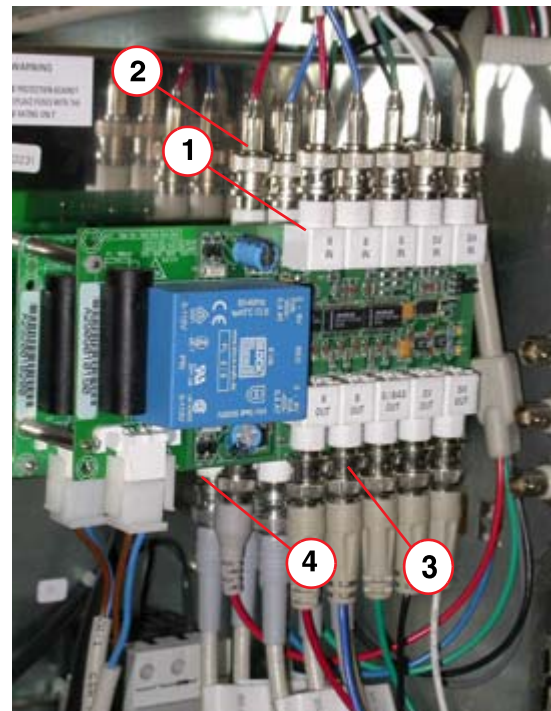


Fig. 60: *Cabling of the imaging system container*

- Pos. 1 Video splitter D233 (live image; front)
- Pos. 2 Video splitter D233 (reference image; back)
- Pos. 3 Live image monitor connections
- Pos. 4 Reference image monitor connections

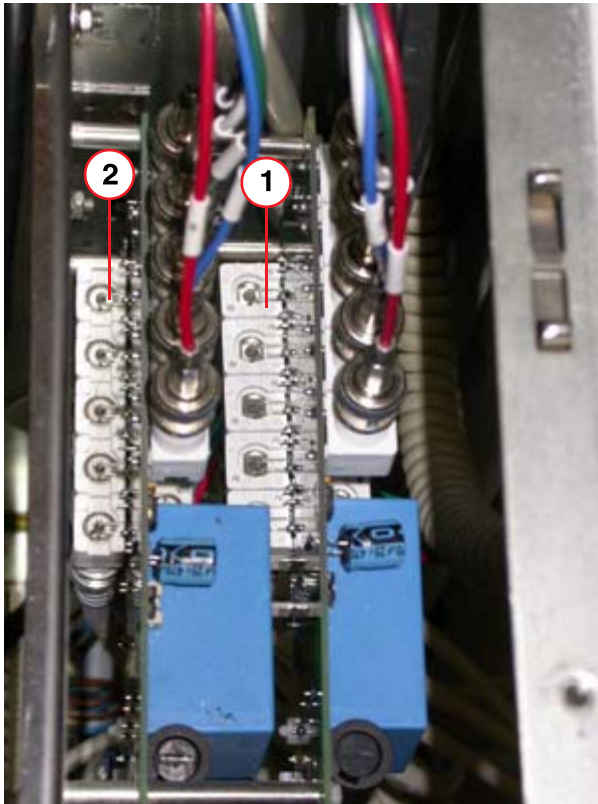


Fig. 61: Video splitter D233

- Pos. 1 Live image video splitter
Pos. 2 Reference image video splitter

NOTE

The signal for the live image is available at the front video splitter (1/Fig. 61 / p. 55), and the signal for the reference image is available at the back video splitter (2/Fig. 61 / p. 55).

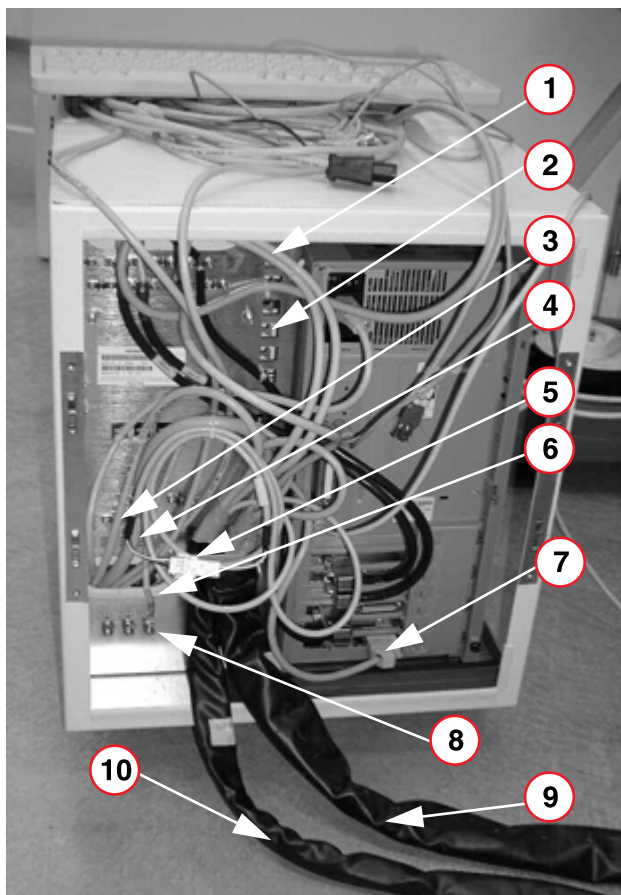


Fig. 62: Strain relief overview

Pos. 1	Image signal cables (W650)
Pos. 2	M16.K2 (power cables for the monitors)
Pos. 3	M16.D1.SK111 (W600)
Pos. 4	M16.F1 (W600)
Pos. 5	M16.X1 (W600 + W650)
Pos. 6	M16.X2 (W650)
Pos. 7	M59.X3 (W600) XCS cable
Pos. 8	M16.PE (W600)
Pos. 9	Partial cable harness W600
Pos. 10	Partial cable harness W650 TFT support arm

NOTE

The design of the cable harnesses on the imaging system contains is identical, with the exception of the number of BNC cables. Cable harness W650 has 7 coaxial cables with BNC plugs.

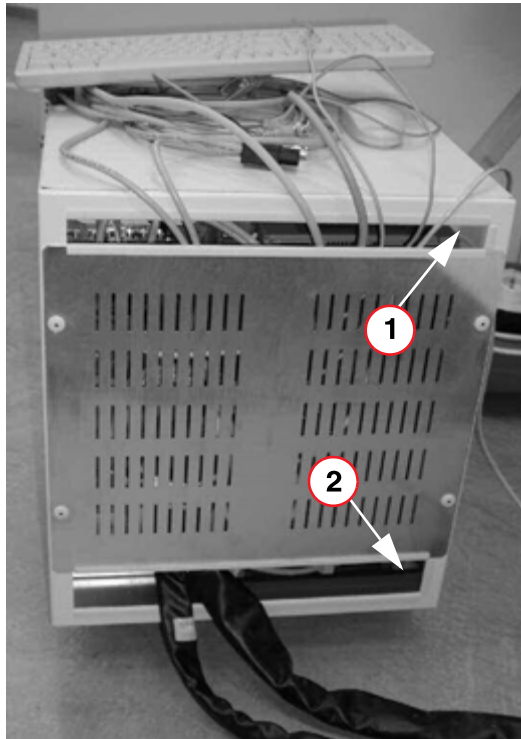


Fig. 63:

- Pos. 1 Power and image cables for monitors in the control room, mouse and keyboard cables, optional: Printer cables
- Pos. 2 Supply of cables from unit and generator

Board D1 (BUC) - connector overview

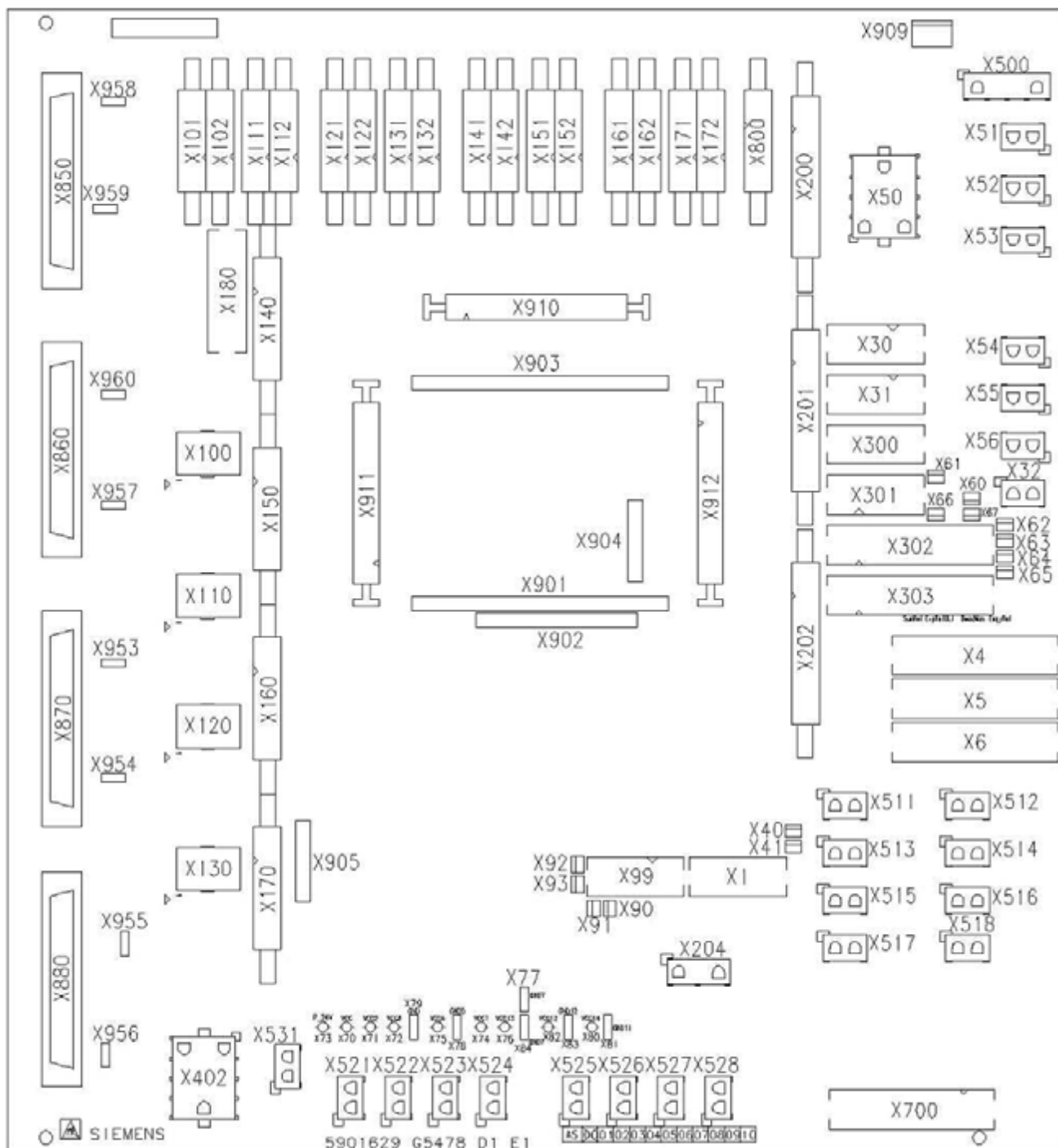


Fig. 64: PC board D1 (BUC) - connector overview

Cable harness installation

W100 system (tube assembly) - POLYDOROS SX

System (tube assembly)	Generator	Function
H11.+	AP1.H1.+	High-voltage cable (+)
H11.-	AP1.H1.-	High-voltage cable (-)
H11.PE	M16.K20.PE	Ground wire
H11.1,2	D160.X61	Oil pressure switch
H11.X2	K31/K32	Rotating anode cable
KermaX	Connector	Dose measurement

W150 system (I.I.) - POLYDOROS SX

Generator	System (I.I.)	Function
D100.X28(F)	D100.X1	SDM sensor
Z108.K1	Conn2/D100.X2 /M61.K1	I.I. voltage supply (zoom)
D190.X10	M8.K5	Gray filter
D190.X10	FK.X2	TV iris

Additional cables

NOTE

The subsequently listed cables are routed separately and are not part of the cable harness.

Imaging system container	Generator	Unit (II)	Function
Imaging system	—	FK.X1	Cable for CCD camera (X10)
	D100.X33(A)	M3.JK2	Iontomat cassette

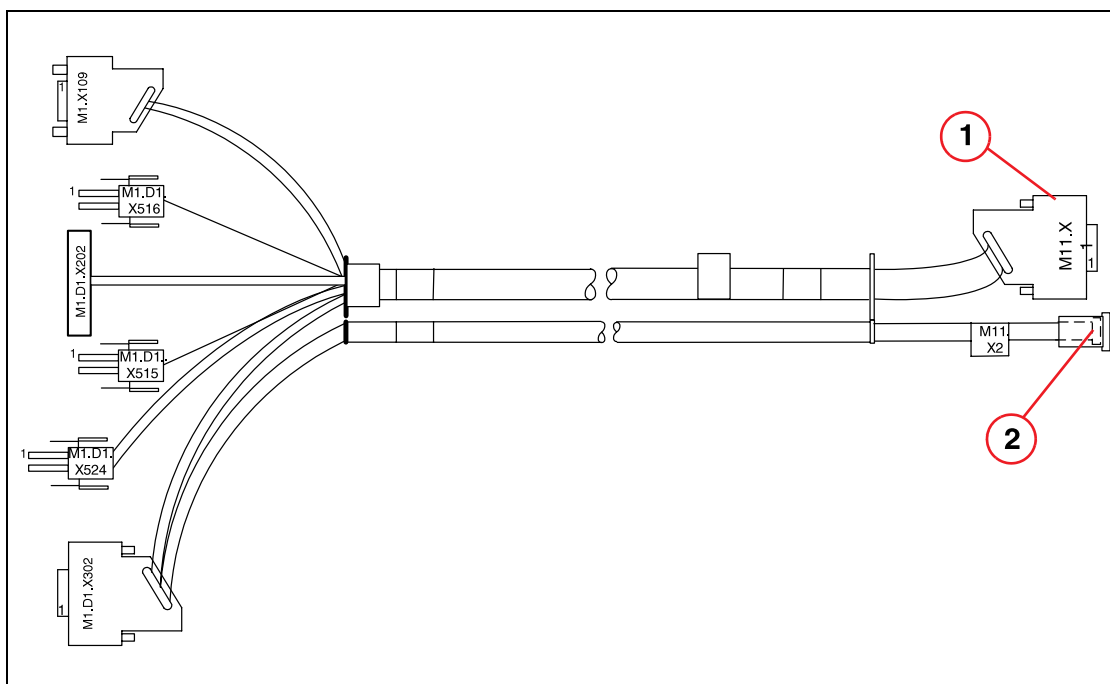
W360 unit (M1) - control console (M11)

Fig. 65: Unit M1.D1 control console (M11)

Pos. 1 Control panel

Pos. 2 Tableside control (optional)

W400 system (M1) - POLYDOROS SX

System	Generator	Function
M1.F1	M16.K4	Voltage supply
M1.PE	M16.PE	Ground wire
M1.D1.X31	D320.X4US	HW radiation release
M1.D1.X301	N10.D100.X10	CAN connection
M1.D1.X32	D160.X61	Radiation display control panel
M1.X109	D160.X9	Control panel on/off

W600 POLYDOROS SX - imaging system container

Polydoros SX	Cable	IS container	Name
D320.X4S	1	M59.D100.X3	XCS connection cable
D190.X11	2	M16.D1.SK111	Sync. pulsed FL/DR

Polydoros SX	Cable	IS container	Name
M16.K30	3	M16.F1	Voltage supply for the imaging system container
M16.PE	4	M16.PE	Ground wire
D160.X64	5	M16.X1	TFT radiation display

W650 imaging system container - TFT support arm

IS container	Support arm interface M12	Name
M16.K22	M12.X8	Power pack endo-switchover TFT
BS.Live 1	M12.Live 1	RGB Live TFT
BS.Ref 1	M12.Ref 1	RGB Ref TFT
M16.X1	M12.H1	TFT radiation display
M16.BNC1	Mon. switchover URO	Urodynamic BAS (B/W)

Data printer connection (label printer, optional)

NOTE

The label printer described here is used for printing patient-related doses.

- Connect the 9-pole connector on the side to connection X62 of the XCU.

Remote control panel cabling (optional)



Fig. 66: Control panel

- Open the back cover of the control panel and connect the cable coming from module M1 (unit) as labeled (Fig. 67 / p. 62).

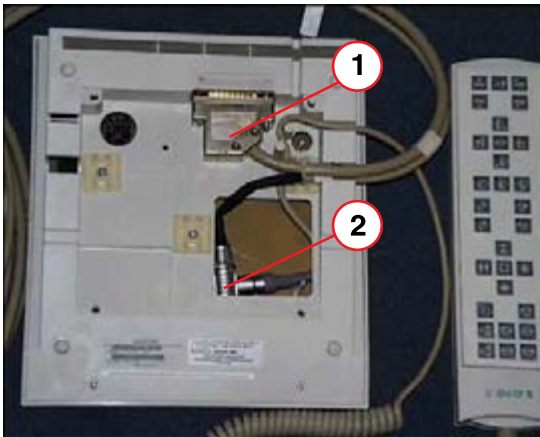


Fig. 67: Cable layout in the control panel

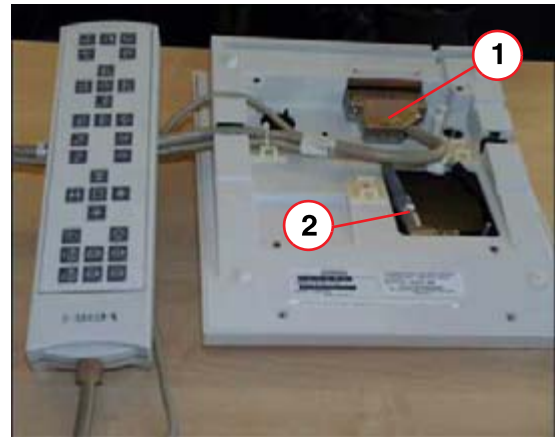


Fig. 68: Cable layout in the control panel

NOTE

The cable layout in the control panel depends on the cable supply (1/Fig. 67 / p. 62); (1/Fig. 68 / p. 62).

- Ensure that the cables are free of strain.
- Connector M11.X2 must be situated inside the control panel and may not be routed toward the outside.
- Connect the second tableside control (optional), if available, and place it on the control panel (2/Fig. 67 / p. 62); (2/Fig. 68 / p. 62).

- Subsequently reattach the cover.

NOTE

The tableside control on the unit (coding A) and the tableside control on the control panel (coding B, optional) are labeled differently (see document “Wiring Diagram” [SPL5-330.844.91.01.02]; tableside control bridge overview).

Installing the endo shelf (optional)

NOTE

The installation of the endo shelf depends on the layout of the UROSKOP Access (left/right-hand version). The differences between the left/right-hand version are shown in the figures on the following pages.

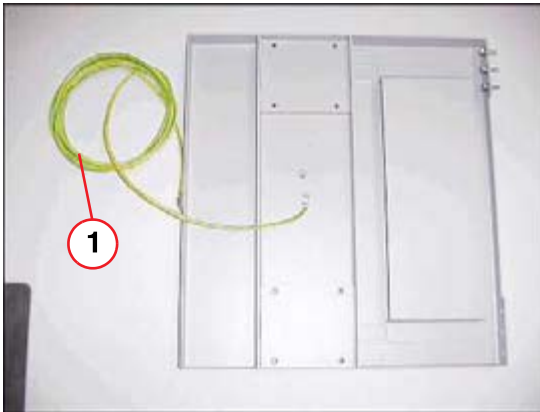


Fig. 69: Endo shelf installation
Pos. 1 Ground wire

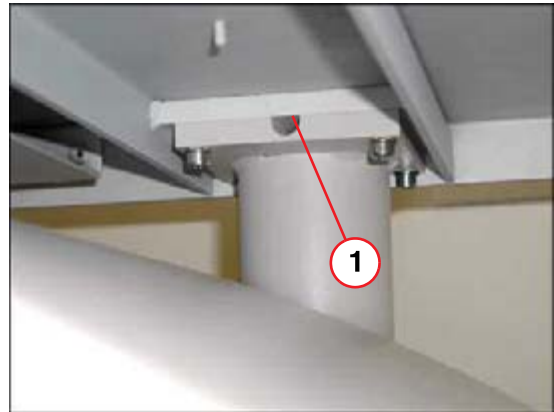


Fig. 70: Endo shelf installation
Pos. 1 Cable lead-in

- Prior to assembly of the shelf, the ground wire (1/Fig. 69 / p. 64) and the supplied 20-meter cable (3 x 1.5 mm²) must be passed through the flange tube (1/Fig. 71 / p. 64). The cable lead-in is shown in (1/Fig. 70 / p. 64).
- After the cables are led in, the flange tube (1/Fig. 71 / p. 64) is fastened to the shelf bottom (Fig. 70 / p. 64) via the supplied screws (M6 x 25) and washers.



Fig. 71: Endo shelf installation
Pos. 1 Flange tube

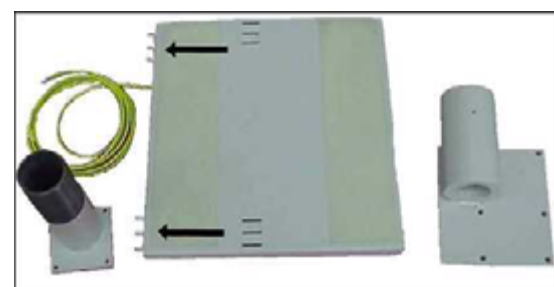


Fig. 72: Endo shelf installation

- Check the grounding bolts and if necessary tighten these (see arrows) (Fig. 72 / p. 64).

NOTE

Use increased caution when assembling the shelf. Make sure that the led-in power cable and the ground wire are not crushed or damaged.

Right-hand version of the endoscopy shelf

NOTE

The figure shows the installation of the right-hand version (Fig. 73 / p. 65).

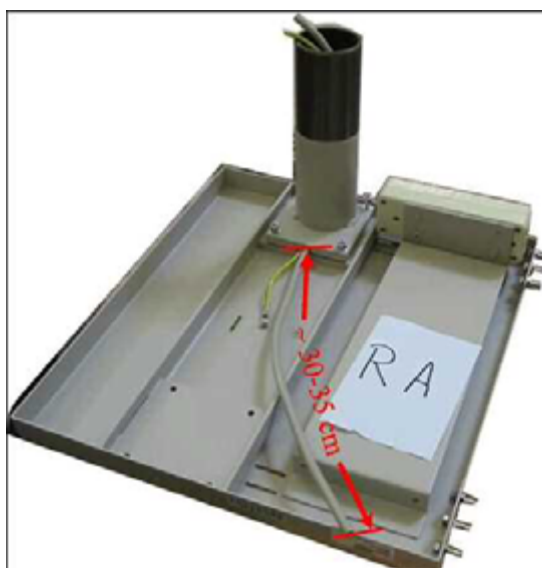


Fig. 73: Right-hand version of the endo shelf



Fig. 74: Right-hand version of the endo shelf
Pos. 1 Unit connection



- Use the supplied screws M8 x 25 DIN 912 and washers to mount the unit connection (1/ Fig. 74 / p. 65) to the back of the lifting base.
 - Tighten the 5 screws with a torque of 25 Nm.

Left-hand version of the endoscopy shelf

NOTE

The figure shows the installation of the left-hand version (Fig. 75 / p. 66).

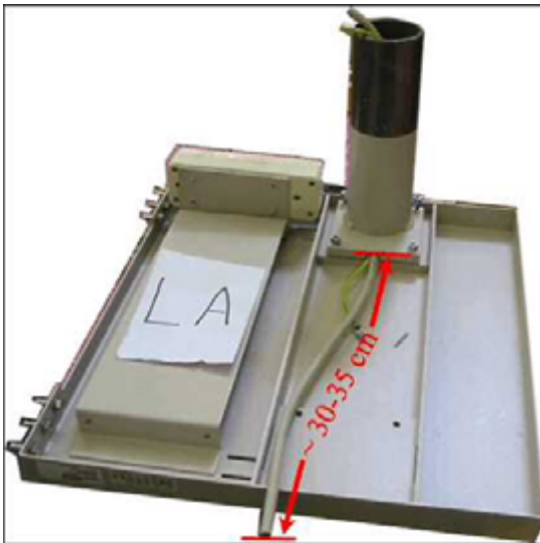


Fig. 75: Left-hand version of the endo shelf



Fig. 76: Left-hand version of the endo shelf
Pos. 1 Unit connection



- Use the supplied screws M8 x 25 DIN 912 and washers to mount the unit connection (1/Fig. 76 / p. 66) to the back of the lifting base.
 - Tighten the 5 screws with a torque of 25 Nm.

Installing the endo shelf on the unit carrier

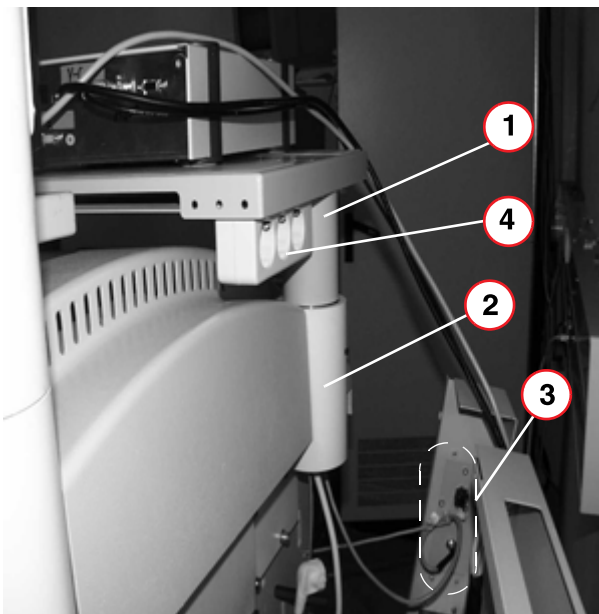


Fig. 77: Endoscopy shelf with endoscopy interface

- Route the connection cable (20 m) through the unit connection of the unit carrier (1/Fig. 77 / p. 66); (2/Fig. 77 / p. 66).
- Connect the ground wire to the grounding point of the lifting base.

- Install the shelf in the mount (1/Fig. 77 / p. 66) and secure it with the threaded pin (2/Fig. 77 / p. 66).
- Install the emergency shutdown plate in the back wall of the unit and secure it tightly via screws (3/Fig. 77 / p. 66).

NOTE

The connection of the multiple socket outlet (4/Fig. 77 / p. 66) and the on-site connection of the 20-m connection cable (3 x 1.5 mm²) may only be performed by an authorized specialist and must follow the country-specific regulations provided by the operator. This may not be performed at the system contactor (see document “Planning Guide; System; UROSKOP Access (e) “ [SPL5-330.891.01.xx]).

Outside Germany, the supplied multiple socket outlet may be replaced by a multiple socket outlet meeting the country-specific regulations. This multiple socket outlet is to be procured locally.

Endoscopy interface connection (optional)

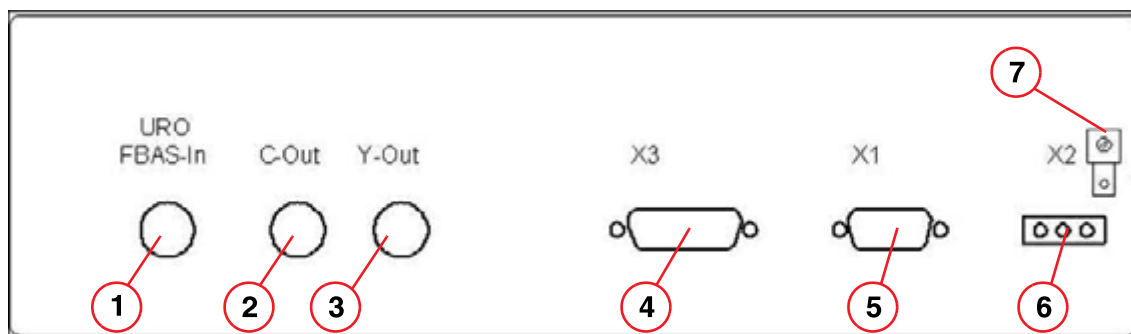


Fig. 78: *Endoscopy interface connections*

- Pos. 1 FBAS-In: Composite video from the scan converter (imaging system container) (BNC)
- Pos. 2 C-Out: S-Video (C) to the monitor (BNC)
- Pos. 3 Y-Out: S-Video (Y) to the monitor (BNC)
- Pos. 4 X3: Control signals from M1 (BUC) (15-pole D-sub)
- Pos. 5 X2: Power input (230 V AC)
- Pos. 6 X1: Serial connection (RS232) to the monitor (9-pole D-sub)
- Pos. 7 Ground wire

Connecting the foot switch

- Connect the fluoroscopy foot switch (Fig. 79 / p. 69) to M1.X9 according to the cable labeling.



Fig. 79: Fluoroscopy foot switch connection

- Connect the system foot switch (optional) to M1.D1.X303 according to the cable labeling (Fig. 80 / p. 69).



Fig. 80: System foot switch

- For the purpose of strain relief/fastening, secure the foot switch cable to the cable harness (2/ Fig. 20 / p. 21) via cable ties.

ASPIA imaging system container

NOTE

FLUOROSPOT compact imaging systems as well as ASPIA imaging systems are installed in the installed base.

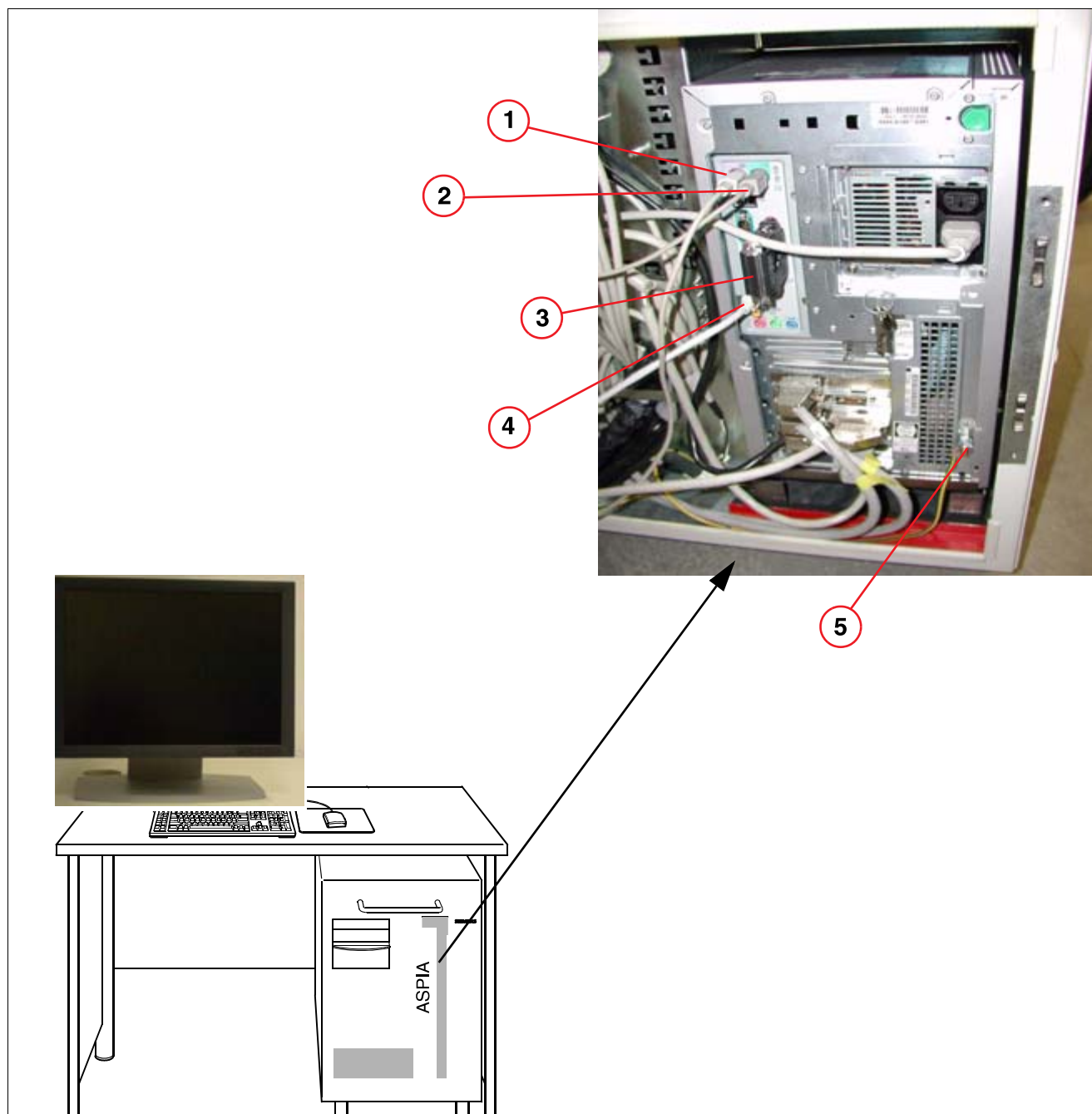


Fig. 81: ASPIA container

- Pos. 1 Keyboard connection
- Pos. 2 Mouse connection
- Pos. 3 License dongle
- Pos. 4 Network connection
- Pos. 5 Connection point of the ground wire of the ASPIA PC

- Install the imaging system container at the location specified in the project plan.
- Ensure a sufficient distance from the tabletop - at least 10 cm.

NOTE

To connect the imaging system container, it is necessary to open the cover, side wall and rear wall of the container (access to M16, transformer, network connection, and interfaces).

- Position cable harness W650 of the TFT support arm with respect to the imaging system container.
- Install cable harnesses W600 and W650 as described in the section [\(Cable harness installation / p. 59\)](#).

NOTE

Strain relief is generally provided for all external cables. Cable ties to be attached to the provided punched holes in the housing (M16, imaging system container) are used for securing the cables. The stripped cable shields are to be clamped under the corresponding cable clips.

Mouse

- Connect the mouse to the right connection with the **mouse** symbol [\(2/Fig. 81 / p. 70\)](#).
- Use cable ties at the punched holes in the imaging system container for strain relief.

Network

- Connect the PC to the local network via an unshielded twisted pair lead [\(4/Fig. 81 / p. 70\)](#).
 - The cable is included in the scope of delivery.

NOTE

In the event in which no network connection is initially provided, this lead should be attached to the back wall of the imaging system container via cable ties.

Keyboard

- Connect the keyboard cable to the left connection with the **keyboard** symbol and secure the cable via cable ties [\(1/Fig. 81 / p. 70\)](#).

NOTE

Use the supplied extension to extend the keyboard cable.

Laser printer connection

- The following options are possible for connecting the laser printer (paper printer):
 - Integration of the printer as a network printer in the local hospital/office network;
 - LPT1 connection (parallel interface to the back of the PC);
 - Connection directly to the PC network connection (RJ45 connection on the back of the PC; (4/Fig. 81 / p. 70)).

NOTE

Detailed descriptions regarding the connection of the paper printer are provided in document "Installation and Start-up; Installation of options" (SPL5-330.814.02.xx).

Back of the imaging system PC

NOTE

The cabling shown here is only an example.

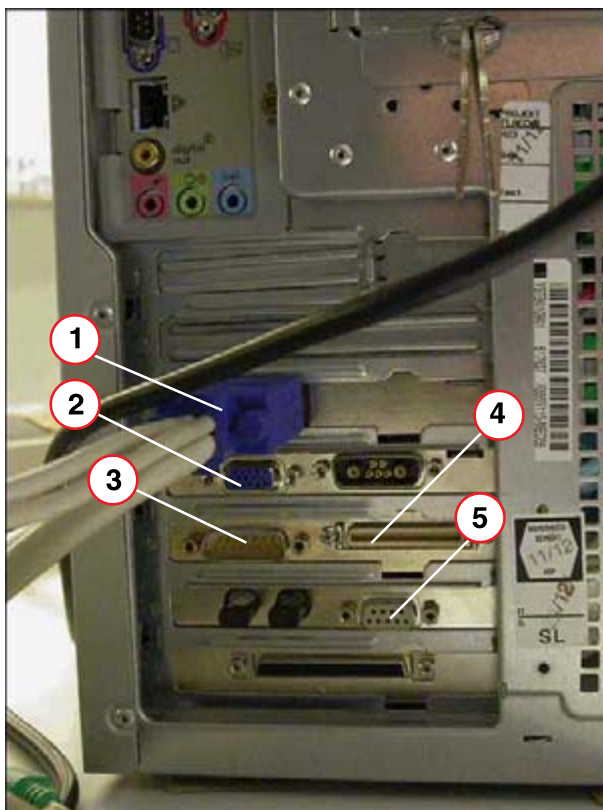


Fig. 82: Cabling at the back of the PC

- Pos. 1 Monitor 1 (live)
- Pos. 2 Monitor 2 (reference)
- Pos. 3 Radiation trigger hardware
- Pos. 4 TV camera
- Pos. 5 XCS connection (M59.X3)

Cabling of the imaging system container

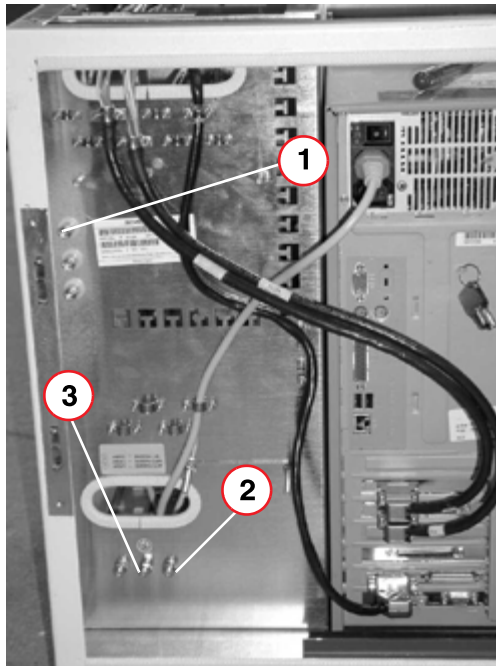


Fig. 83: Imaging system container cabling

- Pos. 1 BNC 1: Urodynamics option
- Pos. 2 Connection point of the ground wire of the ASPIA PC
- Pos. 3 Connection point of the ground wire of the generator voltage supply

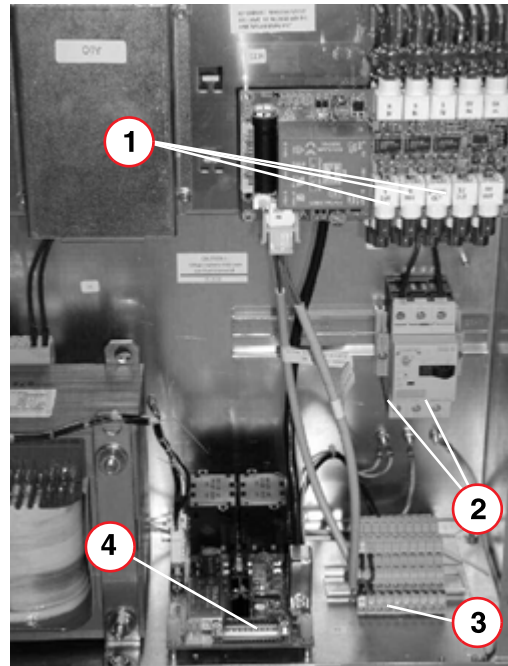


Fig. 84: Imaging system container cabling

- Pos. 1 Monitor connections
- Pos. 2 Connection points of the 400 V/440 V/480 V voltage supply from the generator
- Pos. 3 M16.K2
- Pos. 4 M16D1.SK111

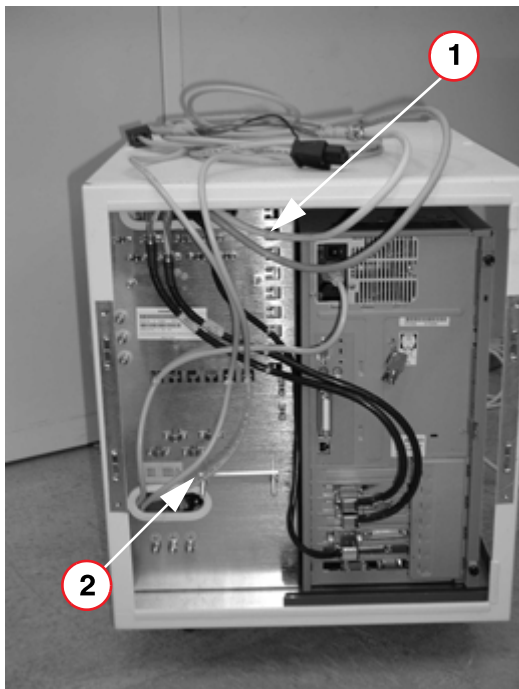


Fig. 85: *Imaging system container cabling*

- Pos. 1 Routing of image signal cables to the container
Pos. 2 Supply of the power cables

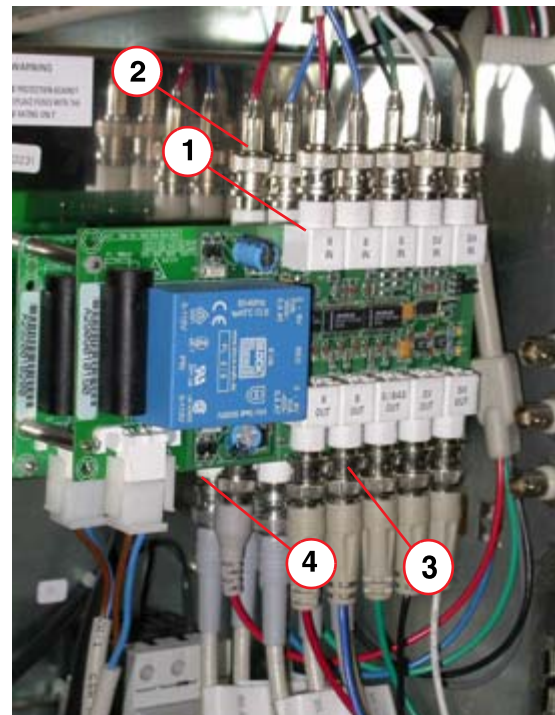


Fig. 86: *Cabling of the imaging system container*

- Pos. 1 Video splitter D233 (live image; front)
Pos. 2 Video splitter D233 (reference image; back)
Pos. 3 Live image monitor connections
Pos. 4 Reference image monitor connections

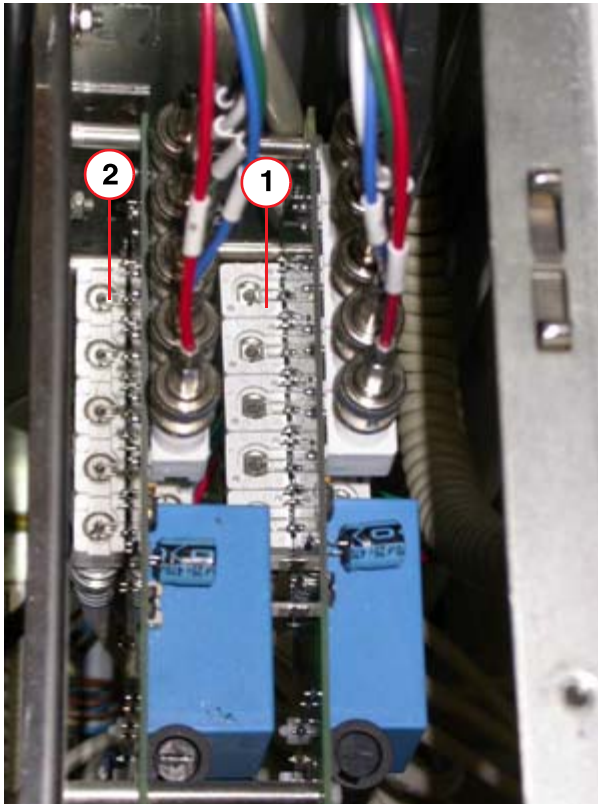


Fig. 87: Video splitter D233

- Pos. 1 Live image video splitter
Pos. 2 Reference image video splitter

NOTE

The live image is available at the front video splitter (1/Fig. 87 / p. 75), and the reference image is available at the back video splitter (2/Fig. 87 / p. 75).

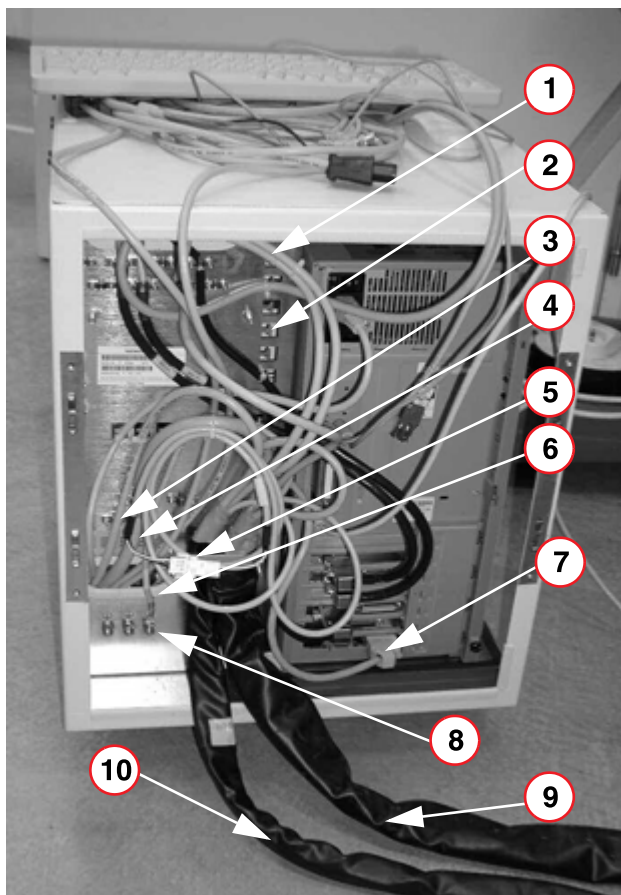


Fig. 88: Strain relief overview

Pos. 1	Image signal cables (W650)
Pos. 2	M16.K2 (power cables for the monitors)
Pos. 3	M16.D1.SK111 (W600)
Pos. 4	M16.F1 (W600)
Pos. 5	M16.X1 (W600 + W650)
Pos. 6	M16.X2 (W650)
Pos. 7	M59.X3 (W600) XCS cable
Pos. 8	M16.PE (W600)
Pos. 9	Partial cable harness W600
Pos. 10	Partial cable harness W650 TFT support arm

NOTE

The design of the cable harnesses on the imaging system contains is identical, with the exception of the number of BNC cables. Cable harness W650 has 7 coaxial cables with BNC plugs.

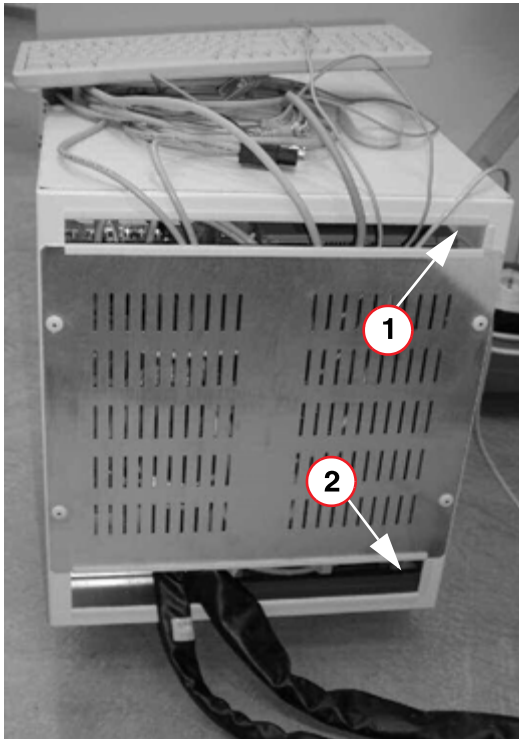


Fig. 89:

- Pos. 1 Power and image cables for monitors in the control room, mouse and keyboard cables, optional: Printer cables
- Pos. 2 Supply of cables from unit and generator

Covers for the imaging system container

- Attach the cover and side and rear panels of the imaging system container.



Fig. 90: Back of the imaging system container

- Use two Allen screws (M 4 x 16) instead of the cover screws to attach the wall spacer bracket (Fig. 90 / p. 78).

NOTE

This bracket must never be used as a carrying handle.

- Push the imaging system container against the wall as far as the bracket allows.

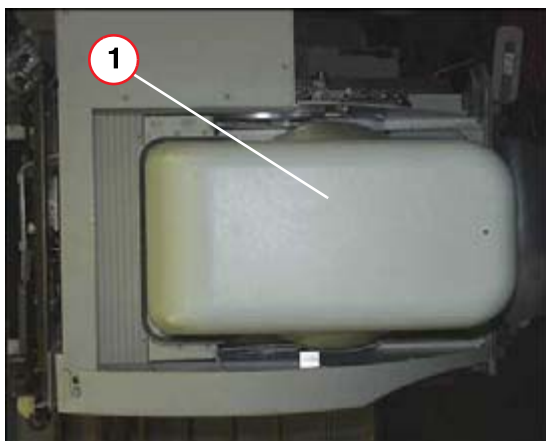


Fig. 91:

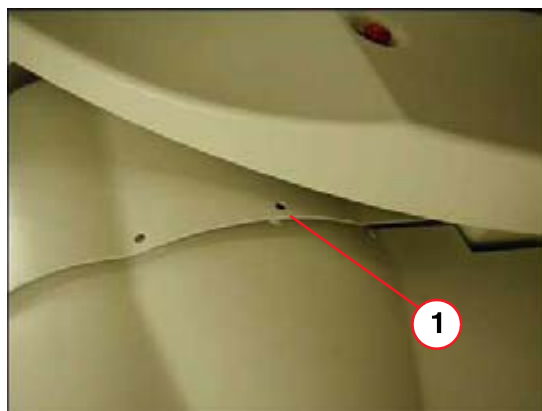


Fig. 92:

NOTE

The fastening screws for the covers are located in a plastic bag attached to the corresponding cover.

- Install the covers in the sequence shown below.
- Attach the cover to the I.I. at the bottom ([Fig. 91 / p. 78](#)).
 - For installation, move the unit into the +90° position. Fasten the image intensifier cover with 6 cover screws and tighten the screws in the 0° position of the unit.

NOTE

Do not insert the cover screws through the cover since this would cause the image intensifier collision protection to be permanently in operation ([Fig. 92 / p. 78](#)).

- After installation, check for proper functioning of the collision protection in all unit positions by lifting the image intensifier cover.

Unit carrier cover plate

- Use the supplied Allen screws to attach the cover plate ([1/ Fig. 93 / p. 79](#)) to the unit carrier.



Fig. 93: Unit carrier cover plate

Pos. 1 Cover plate

Back of the unit carrier

- Snap on the rear unit carrier cover. It is secured after installation of the upper unit carrier cover ([Fig. 94 / p. 80](#)).

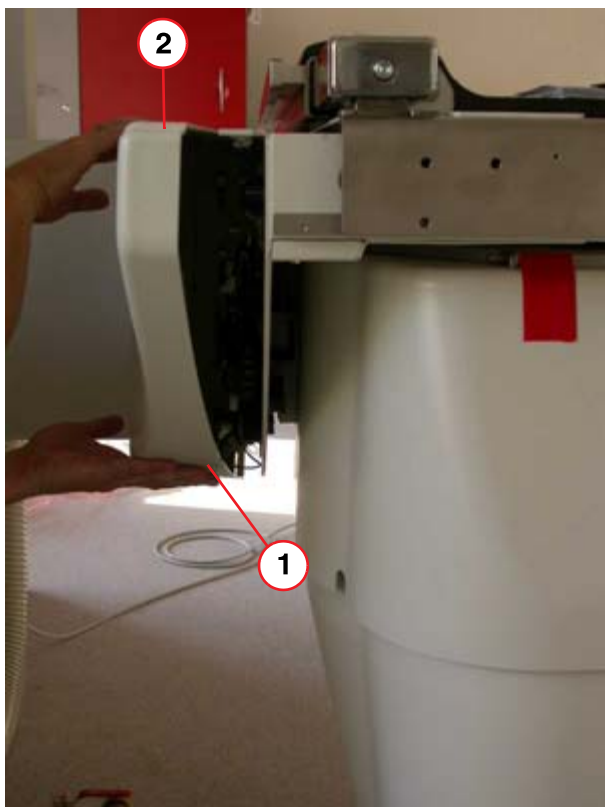


Fig. 94: Rear unit carrier cover

Tower cover

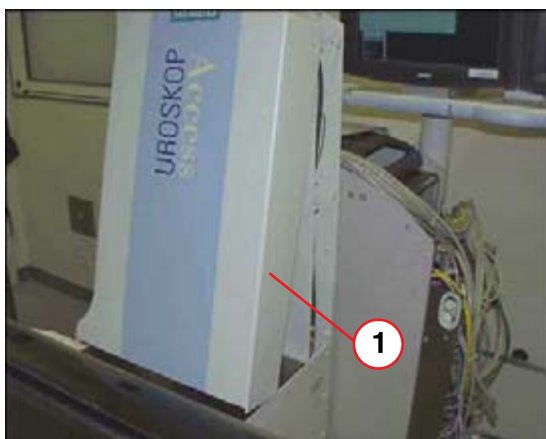


Fig. 95: Tower cover

Pos. 1 Cover

- Move the table laterally toward the operator to its end position.
- Two persons must carefully insert the cover between the cover plate and the tube carriage (1/Fig. 95 / p. 80).
- Carefully insert the tower cover underneath the tube carriage (1/Fig. 96 / p. 81).

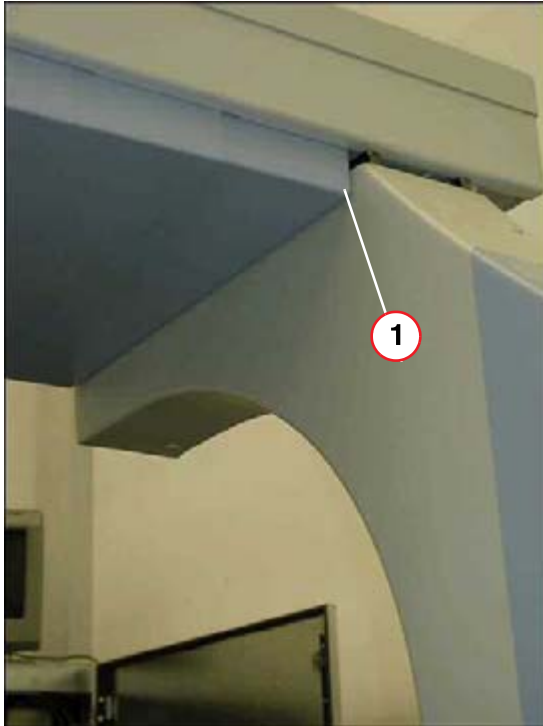


Fig. 96: Tower cover

Pos. 1 Cover

- Attach the tower cover via the supplied screws (1/Fig. 97 / p. 81).

NOTE

Make sure that the rubber seal is properly seated on the covers (2/Fig. 97 / p. 81).

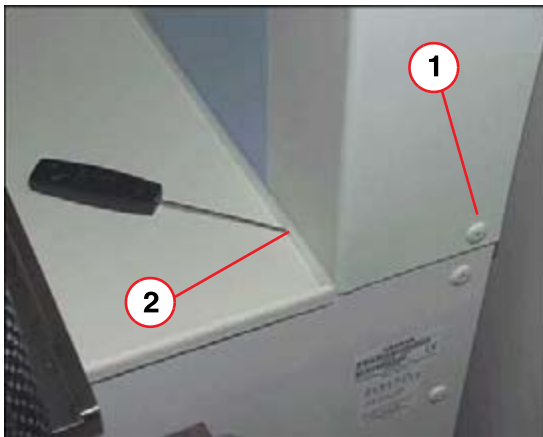


Fig. 97: Securing the tower cover

Pos. 1 Screws

Pos. 2 Rubber seal

Front unit carrier cover

- Insert the unit carrier cover (1/Fig. 98 / p. 82) and fasten it via the supplied screws.

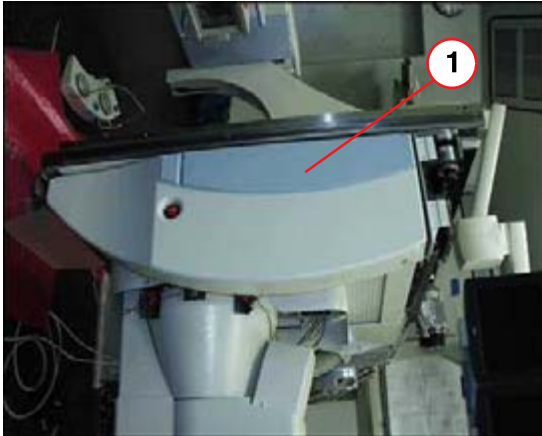


Fig. 98: Front unit carrier cover

Pos. 1 Unit carrier cover

Top unit carrier cover

NOTE

To fasten the upper unit carrier cover, the tabletop must be folded up.

- Carefully insert the upper unit carrier cover (1/Fig. 99 / p. 82) and fasten it via Allen screws.
- Fasten the rear unit carrier cover.
 - Secure the cover on the bottom with cover screws (1/Fig. 94 / p. 80).
 - Secure the cover on the top with Allen screws (2/Fig. 94 / p. 80) by inserting the Allen screws through the upper unit carrier cover and the rear unit carrier cover.



Fig. 99: Top unit carrier cover

Pos. 1 Unit carrier cover

Additional covers

- Fasten the tube carriage cover (1/Fig. 100 / p. 83) with cover screws.

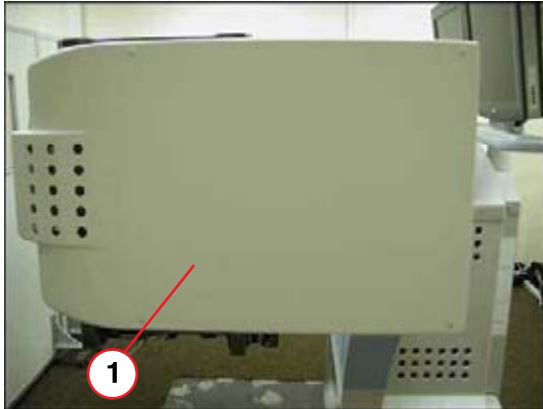


Fig. 100: Tube carriage cover

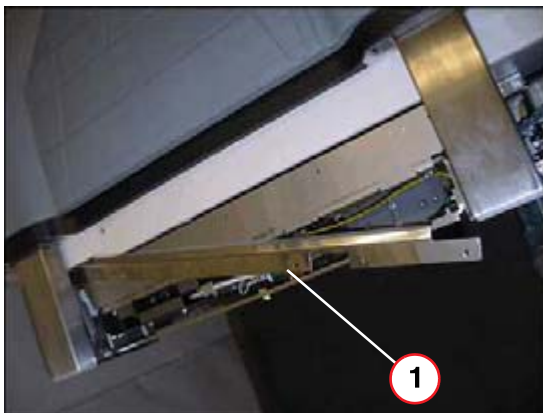


Fig. 101: Inserting the cover rail

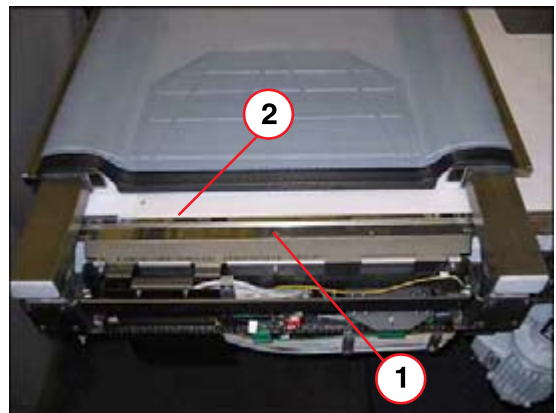


Fig. 102: Inserting the cover rail

- Laterally insert the cover rail (1/Fig. 101 / p. 83) and (1/Fig. 102 / p. 83).

NOTE

Observe the position of the silicone strip. (2/Fig. 102 / p. 83)

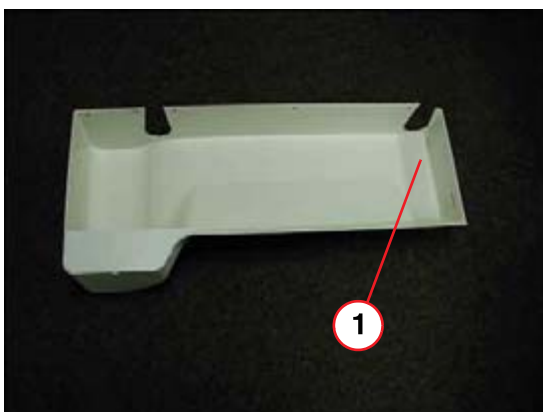


Fig. 103: Transverse unit cover



Fig. 104: Transverse table drive

- Insert the unit carrier transverse cover (1/Fig. 103 / p. 83) in the transverse table drive (Fig. 104 / p. 83) and fasten it with cover screws.

NOTE

Only the short cover screws included in the delivery may be used to attach the cover rail.

Lifting base covers

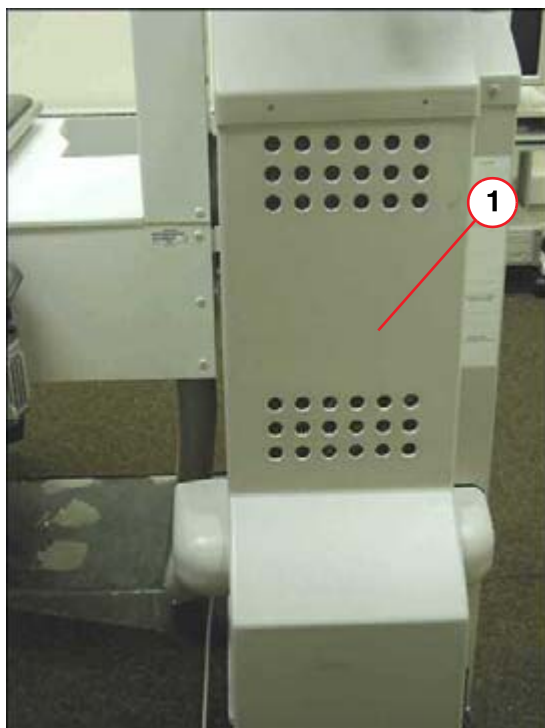


Fig. 105: Side lifting base cover



Fig. 106: Side lifting base cover

- Attach the side covers to the lifting base (1/Fig. 105 / p. 85) and (1/Fig. 106 / p. 85).



Fig. 107: Foot switch cable

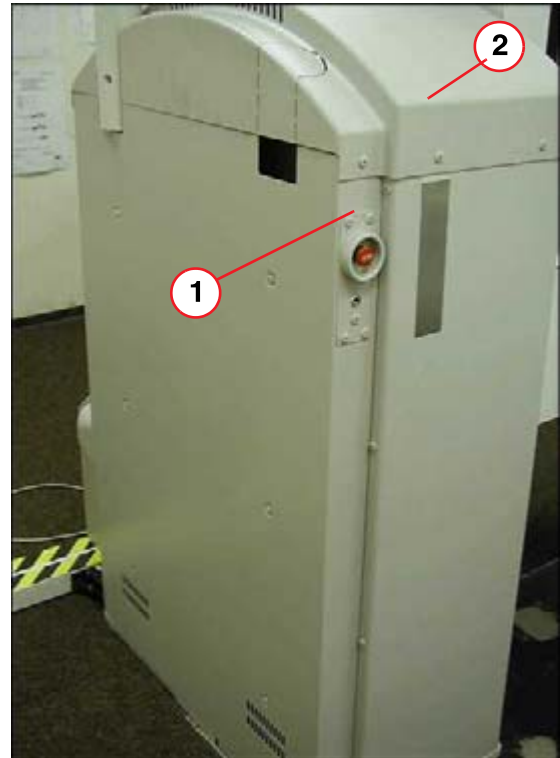


Fig. 108: Back cover panel

Pos. 1 Emergency shutdown plate

Pos. 2 Lifting base cover

- Lead the cable of the foot switch laterally out of the cover (1/Fig. 107 / p. 86).
- Install the emergency shutdown plate (1/Fig. 108 / p. 86) in the rear panel and secure it with screws.
- Screw on the cover of the lifting base (2/Fig. 108 / p. 86).
- Attach the cover of the lifting base at the locations marked in (Fig. 109 / p. 87). Use the cover screws M4 x 20 supplied for this purpose.

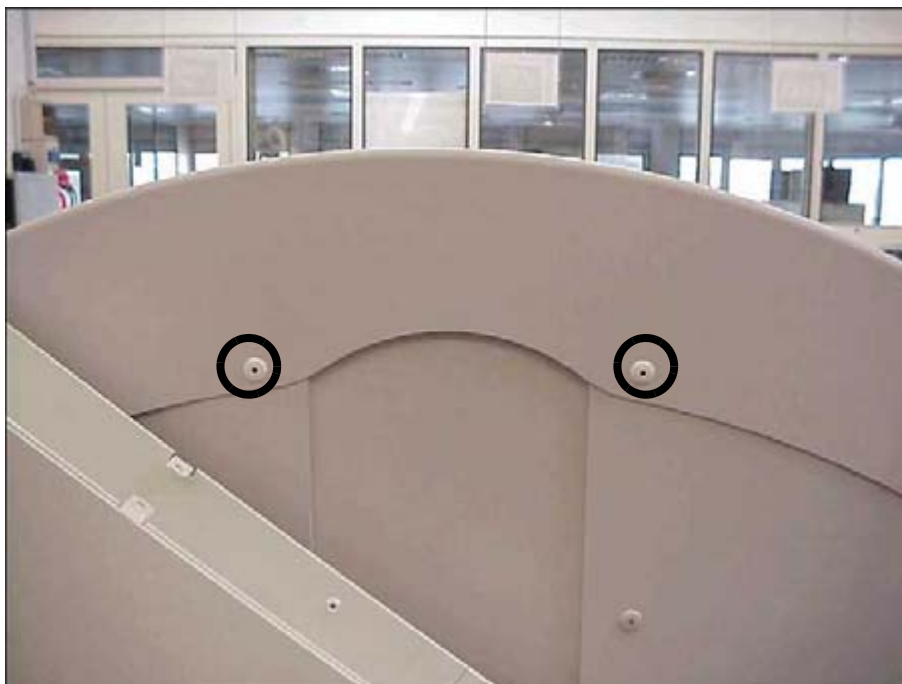


Fig. 109: Lifting base cover

- Attach the elbow rests at the foot end of the table and fold them in (1/Fig. 111 / p. 87).



Fig. 110: Elbow rest installation

Pos. 1 Elbow rests

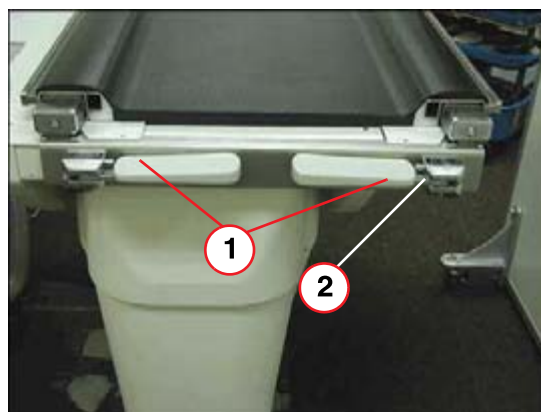


Fig. 111: Elbow rest installation

NOTE

The elbow rests must not automatically unfold when the unit is tilted (1/Fig. 110 / p. 87).

Adjustment is performed using an Allen wrench on the bottom side of the elbow rests (2/Fig. 111 / p. 87).

- Attach all accessories to the unit and check them for damage and proper functioning.
- Pack the unit with the enclosed covering film if start-up/use is delayed because of building construction work, for example.

Chapter 1	<ul style="list-style-type: none"> • Section (Required documents / p. 5) completely revised • Section (Room preparations / p. 6) completely revised (transformer trough added) • Section (Safety information / p. 7) completely revised • Section (Product-specific notes / p. 7): notes and safety information added • Section (Completing the installation certificate / p. 7) revised (print number added; information stating that the certificate is to be provided to the corresponding office) • Section (Tolerance data / p. 8): Bullet point added as note • Section (Abbreviations / p. 8): TV added
Chapter 2	<ul style="list-style-type: none"> • 1. Section deleted because it was provided twice in the document • Section (Accessories for the lifting base / p. 9): dowel designation changed • Section title "Installing the transport frame on the lifting base": changed to (Installing the transport rollers on the lifting base / p. 10) • Section (Positioning and installing the lifting base / p. 11): dowel designations changed; first bullet point: Link to image added; in the bullet point "to remove the transport safety device from the lifting base, unscrew the Allen screws...": link to the image changed; the note "the transport safety device can be relieved.." added; the bullet point "to remove the transport safety device..." deleted; the note "the transformer trough may only be installed on..." added
Chapter 3	<ul style="list-style-type: none"> • Section (Installation on the lifting base / p. 17): safety information added; the note "The collimator is delivered separately..." added as a separate note; subpoint a) formatted as a note • Section (Installation of power supply module (M1) / p. 19): the text "the layout (connection overview)" revised; bullet points 3/4 added • Section (Wiring of M1/M2 / p. 20) reformatted; the note "do not use any of the additional shims..." added.
Chapter 4	<ul style="list-style-type: none"> • Section (Installing the collimator / p. 26): first bullet point revised; the note "do not damage the collimator blades" repositioned in the chapter; 4th bullet point revised
Chapter 5	<ul style="list-style-type: none"> • Section (Installing the TFT support arm / p. 28): bullet point 1 revised; the note "the 5 fastening threads..." added; the note "ensure that the radiation warning light..." revised; document reference in the bullet point "install the TFT flat screens..." revised; risk information added; (Fig. 37 / p. 34): new figure

Chapter 6	<ul style="list-style-type: none"> • Section (List of fixed points / p. 36): completely revised; list of abbreviations for fixed points added; cable storage space information added to the note; last bullet point (cable storage space) added; (Fig. 39 / p. 37)/(Fig. 40 / p. 38)/(Fig. 41 / p. 38) new • Section (Connection of the Iontomat measuring chamber / p. 41): second bullet point corrected; (Fig. 45 / p. 42) legend corrected • Section (Monitoring devices and displays for radiation protection / p. 46): “connecting the display lights for the radiation display” revised; “room lighting control” revised • Section (Monitors in the control room / p. 48): monitor no 1 deleted • Section (Systems without a urodynamics interface / p. 48): first bullet point “monitors no. 1/2” changed to “monitor no. 1”; second bullet point “monitor no. 3” changed to “monitor no. 2” • Section (Systems with a urodynamics interface / p. 48): under “live monitor” in the first bullet point “monitor no. 1/2” changed to “monitor no. 1”, in the second bullet point “monitor no. 3” changed to “monitor no. 2”; under “reference monitor” “monitors no. 1/2/3” changed to “monitors no. 1/2”; note revised • Section (FLUOROSPOT Compact imaging system container / p. 51): first note revised • Section (Mouse / p. 52): first bullet point revised • Section (Network / p. 52): note revised • Section (Keyboard / p. 52): bullet point revised • Section “Laser camera connection” completely revised and renamed to (Laser printer connection / p. 52) • Section (Back of the imaging system PC (cabling only as an example) / p. 53): key of (Fig. 58 / p. 53) changed • Section (Cabling of the imaging system container / p. 54): (Fig. 87 / p. 75)/(Fig. 86 / p. 74) new; first note revised; (Fig. 88 / p. 76): legend changed • Section (W150 system (I.I.) - POLYDOROS SX / p. 59): Cables with the function camera cable and Iontomat cassette were deleted from the overview and listed as “additional cables” • Section (Additional cables / p. 59) added • Section (W650 imaging system container - TFT support arm / p. 61): data printer information provided as a separate section (Data printer connection (label printer, optional) / p. 61) • Section (Remote control panel cabling (optional) / p. 62): renamed; first bullet point revised; second note revised; the bullet point “connector M11.X2 must be situated...” new
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Chapter 6	<ul style="list-style-type: none"> • Section “Installing the endo shelf” renamed to (Installing the endo shelf (optional) / p. 64) • Section “Endoscopy shelf with endoscopy interface”: renamed to (Installing the endo shelf on the unit carrier / p. 66); listed under (Installing the endo shelf (optional) / p. 64) as a section; note revised • Section (Endoscopy interface connection (optional) / p. 68): foot switch deleted and included as a separate section (Connecting the foot switch / p. 69) • Section (ASPIA imaging system container / p. 70): first note revised; the note “to connect the imaging system container...” revised • Section (Mouse / p. 71): the first two bullet points were combined and revised • Section (Network / p. 71): first bullet point revised; note revised • Section (Keyboard / p. 71): first bullet point revised • The section “Laser camera connection” renamed to (Laser printer connection / p. 72); completely revised • Section (Cabling of the imaging system container / p. 73): (Fig. 86 / p. 74)/(Fig. 87 / p. 75) new; the note “the live image is available...” revised; (Fig. 88 / p. 76): legend changed
Chapter 7	<ul style="list-style-type: none"> • Section (Covers for the imaging system container / p. 78): The bullet point “Use the supplied Allen screws...” revised; “back of the unit carrier” figure new; installation of the “upper unit carrier cover” revised; highlighted text “additional covers” added